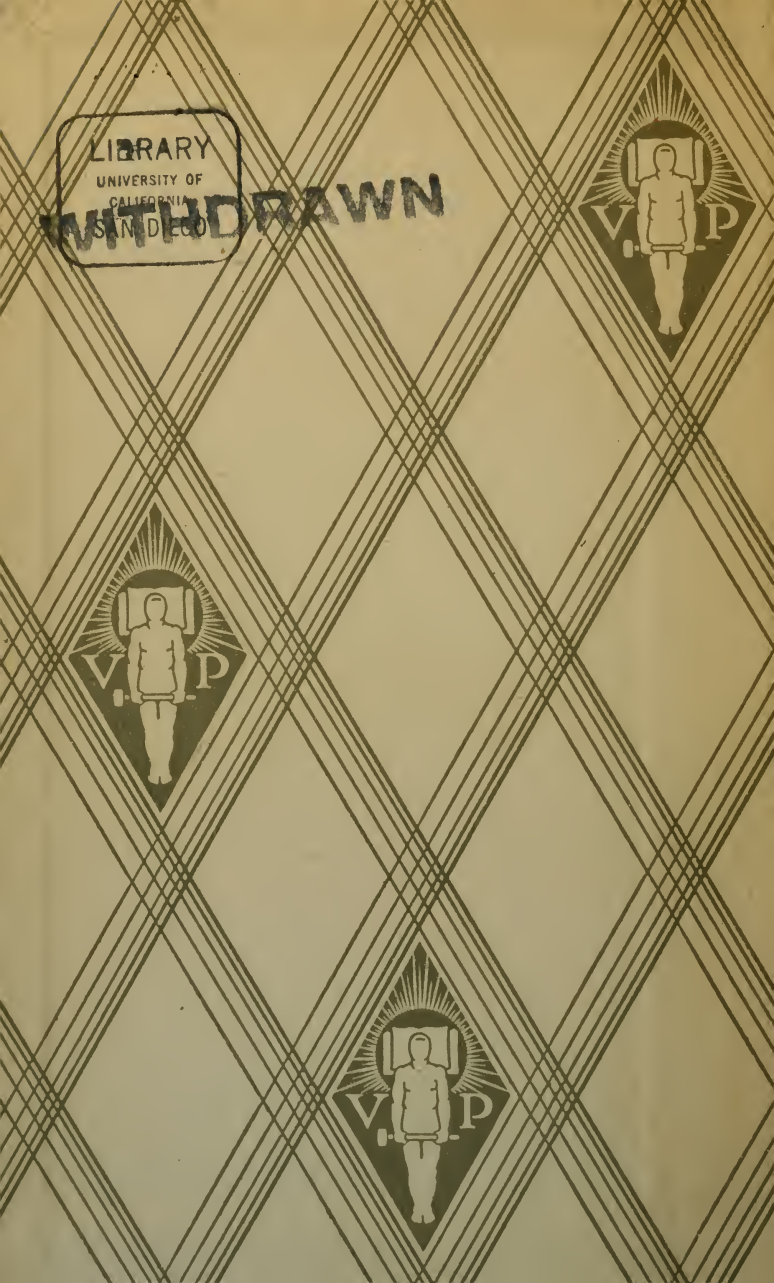
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Vanguard Studies
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THE ECONOMIC ORGANIZATION OF THE SOVIET UNION

VANGUARD STUDIES OF SOVIET RUSSIA

Edited by JEROME DAVIS
Yale University

HOW THE SOVIETS WORK, *by* H. N. BRAILSFORD

THE ECONOMIC ORGANIZATION OF THE SOVIET UNION, *by* SCOTT NEARING AND JACK HARDY

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Vanguard Studies of Soviet Russia

The Economic Organization of the Soviet Union

By
SCOTT NEARING
and
JACK HARDY



THE VANGUARD PRESS
NEW YORK MCMXXIX

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VANGUARD PRINTINGS
First—November, 1927
Second—May, 1929

PRINTED IN THE UNITED STATES OF AMERICA



To the sincere men and women of Russia who, despite prison, exile, and death, burned out their lives trying to attain freedom, peace, and brotherhood for the common people.

BIOGRAPHICAL NOTE

Scott Nearing

Born at Morris Run, Pennsylvania, in 1883; received his B.S. degree at the University of Pennsylvania in 1904, and his Ph.D. from the same institution in 1909; was instructor of economics at that university from 1906 until 1914, and the following year was made associate professor; was also economics instructor at Swarthmore College, and Dean of the College of Arts and Sciences at Toledo University; author of *The American Empire, The Next Step, Oil and the Germs of War, Dollar Diplomacy, Education in Soviet Russia,* and many other books and pamphlets.

Jack Hardy

Born in New York in 1901; a graduate of two eastern universities, in one of which he served on the faculty for one year; has worked and studied with Scott Nearing for four years, and collaborated with him in various pieces of research; gathered material for this book during his visit to Soviet Russia in the early part of this year, having spent about half a year travelling through the Union observing the working of the new economic system at first hand; author of the chapters on the Slave Revolutionary Movements, and the Chinese Revolution of 1911 in *The Law of Social Revolution,* issued by the Social Science Publishers in 1926; contributor to the labor press on economic and political subjects.

EDITOR'S INTRODUCTION

THE Russian Revolution startled a war-diseased world and ushered in the most daring political and economic experiment of the twentieth century. Considering the vast territory affected, the radical changes inaugurated, and the influence which has been and still is being exerted on international relations, there is probably no greater event in modern history, whether for good or evil. Most Americans forget that a decade has already passed since Lenin and his Communistic followers assumed the power. The period of rapid revolutionary change has gone. Russia is painstakingly, step by step, building something different, something unique, something whose final destination is unpredictable.

America has been a land of discovery from its foundation. Not only in the realm of scientific invention, but in first attaining the coveted North Pole and in exploring other unknown areas of the world, Americans have given generously of life and treasure. Today we are uninformed about a great nation covering one-sixth of the land surface of the world. Russia is cut off by an Atlantic Ocean of prejudice, misunderstanding, and propaganda. We still maintain a rigid official quarantine about the Soviet Government. The result is ignorance frankly admitted by one "of the highest authorities in our Government," who declares this inevitable "in the absence of diplomatic relations." Judge Gary corroborates this verdict, "Like many other Americans, I am ignorant in regard to many of the

conditions which exist in Russia at the present time."*

Every scientist realizes that ignorance is one of the most dangerous forces in the world today. No matter how good or how bad the Soviet system, we should know all about it. Instead, we have been ruled by propaganda and hearsay.

The fact is that for the past ten years the Bolshevik government has been operated on, dissected, and laid in its coffin amidst loud applause and rejoicing by distinguished orators in all parts of the world; yet today it is stronger, more stable, than ever before in its history and its leaders have been longer in power than any other ruling cabinet in the world. It is high time that we appraise this government as scientifically and impartially as possible, without indulging in violent epithets or questionable and controversial dogmas. Surely the world is not so abysmally ignorant that after ten years of the rule of the Soviet we cannot discover a common core of truth about Russia.

Whether the Communists are thought to be "dangerous enemies of society" or the "saviors of humanity," the facts should be known before judgment is pronounced. No matter what our conviction, we have to admit that the Bolsheviki are hammering out a startling new mechanism in the field of political control. Their experiment deserves scientific study, not hostile armies; intelligent criticism, not damning epithets.

In the past, America has been flooded with propaganda of all shades. Dr. E. A. Ross dedicates his last volume on Russia "To my fellow-Americans who have become weary of being fed lies and propaganda about Russia." In his chapter on the "Poison Gas Attack"

* *Current History*, February, 1926.

he lists forty-nine stories broadcast throughout America which have been proved totally false. Other writers have pointed out similar facts. Walter Lippman, Editor-in-Chief of *The New York World*, in his illuminating study of all Russian news which appeared in *The New York Times* in the early period of the Revolution, has proved the stupidity, inaccuracy, and falsehood of the "facts and fabrications" which have passed as news. Even those articles and books which have tried to deal honestly with the subject have usually been inadequate. They have either been too general or they have been specific but too brief to be of more than passing value. In all too many cases they are based on only a few weeks of observation in Russia by someone who did not know the native language.

The present series is designed to meet the need for reliable, accurate information on the major aspects of present-day Russia. We have tried to make it as scientifically accurate as is possible in the treatment of contemporary phenomena. It has been our aim in selecting each author to choose someone who because of previous experience and training was peculiarly well qualified as an authority on the particular subject to which he was assigned. In every case we have chosen those who either have made a prolonged stay in Russia, actually writing their volumes while in the country, or those who have made a special trip to Russia to secure the facts about which they write. We have tried to make the series inclusive, covering the more important aspects of the many-sided developments in Russia. Each volume is devoted to one major subject alone. People want detailed, accurate facts in readable form. Here they can be found, ranging all the way from an

analysis of the governmental machinery to the school system. Within this series some repetition has been inevitable. The editor believes that this is distinctly desirable since each author expounds his subject in his own way, with an emphasis original to him and in the light of his own data. No effort has been made to eliminate contradictions, yet they are surprisingly few. Where the testimony of all is unanimous, the conclusions reached are overwhelmingly strong. Where differences exist, they should stimulate the reader to weigh the evidence even more carefully.

It is probably too much to hope that propaganda organizations will not endeavor to discredit any such genuine effort to arrive at the truth. Perhaps it is sufficient to say in refutation that no similar attempt to secure the facts about Russia from trained experts has yet been made in America or elsewhere, so far as the writer is aware. There is scant ground for intelligent criticism unless similar scientific studies have been made with conflicting results; even then time alone can proclaim the final truth. No sincere and unprejudiced scientist will deplore an effort to study and describe what has happened in the first experiment the world has ever seen in applied communism, even if mistakes have been made in the analysis.

These volumes on the whole not only contain the most valuable data so far available, but they will probably remain of permanent worth. In the future no real historian endeavoring to master the facts about the great political upheaval in Russia will care to ignore them. Is Russia the most tyrannical dictatorship of bloody despots that the world has ever seen? Is Russia the first step in the building of a new world order whose keynote will be industrial democracy? We do

not pretend to give here the final judgment of history, but we do claim to have made a sincere effort to portray the facts.

Thanks are due to the authors who have so painstakingly sought to present the truth as they found it, to the publishers for their assistance in making this a notable and usable series, and to all those whose labor, whether by hand or brain, has helped to give these volumes to the American public.

JEROME DAVIS,
Yale University.

AUTHORS' PREFACE

The authors have tried in this volume to furnish descriptive and statistical data which will answer the questions: How do the Russians earn their living under the Soviet system? How is the Soviet economic machinery owned? Is there private capital in the Soviet Union, and if so, how much? What are the relations between employer and worker? Are the workers organized? How? Is the Soviet economic system speeding up or slowing down? Is the Soviet Union moving toward socialism or capitalism? Several topics, such as technical education and Trade Unionism under the Soviets, which are to be the subjects of special Vanguard Press studies, have been passed over briefly in this book. Otherwise the economic situation in the Soviet Union has been treated in some detail.

The authors have compiled the data which is presented in this volume from sources available in this country and from others available only in the Soviet Union. Both of the authors have visited the Soviet Union recently: one during the latter part of 1925 and the early months of 1926; the other during the late months of 1926 and early in 1927. Both, therefore, have not only made a study of materials available here, but have also had the opportunity to observe the workings of the Soviet social and economic system at first hand.

Within the Soviet Union the authors had the opportunity to speak with many of the leaders of the Soviet

economic administration, and to visit factories, mines, government institutions, workers' homes and clubs, trade union headquarters and meetings, factory and other schools, etc. When interpreters were required they were in many cases able to utilize friends. In other cases they hired the services of persons who were able to help them ask their questions and compile their data. In visiting individuals and institutions, they sometimes went by pre-arranged appointment. At other times they went unannounced, made known the purpose of their visit to those in charge and, as the case might be, asked if they might have access to certain data or whether they might visit the factory or other institution. In no case were their requests refused.

Acknowledgments are due to a number of persons, both in this country and in the Soviet Union, who have generously aided the authors in the compilation of data and in the preparation of this volume The members of the staff of the Economics Division of the New York Public Library have been most generous in making available the facilities of their department and in locating the material available in this country. In the Soviet Union, Dr. L. Nimen, director of the department for foreigners of the Society for Cultural Relations with Foreign Countries, arranged for Jack Hardy many interviews with leaders of the economic administration with whom he wished to confer. A. Ginsberg, head of the Department of Economic Management of the Supreme Economic Council, instructed members of his staff to make available much statistical data which we desired. J. Ulizky, director of the Conjecture (Industrial Forecasting) Bureau of the Supreme Economic Council, gave many hours of his time in making clear the organization and the work of the Supreme Economic

Council. Alexander Kogan, member of the presidium of the State Economic Planning Commission, also gave a considerable amount of time to describe the history and the work of his department.

The Agrarian Institute of Moscow, through its assistant director, Mr. Dubrofsky, also made available a considerable amount of statistical data upon Russian agriculture. E. Variach, a director of *Centrosoyus*, the Central Federation of Consumers' Cooperatives, also facilitated the compilation of a considerable amount of material upon the cooperative movement. Thanks are also due to S. Chernov, delegate for foreign affairs of the Commissariat for Ways and Communications, and to a number of other directors, consultants and other persons employed in the Commissariat for Trade, the State Bank, the trade union movement and other departments of the Soviet Economic administration. No one of the persons whom we have acknowledged is in any way responsible for any mistakes which have been made or for opinions which have been expressed.

The authors wish to thank Miss Ann Coles, who prepared the three charts which are contained in the book upon the "Indices of Industrialization," "Trade in the Soviet Union," and "Dynamics of Real Wages and Productivity." They also wish to thank Mr. Fred Ellis, who prepared the chart upon "Soviet Foreign Trade;" Miss Barbara Gail, who typed the original draft of the manuscript and who helped to prepare the index; and Miss Ruth Byrne, who typed the final draft.

The structure and function of the Soviet economic machinery is new and is serving a form of society which has never before existed. It has, therefore, no precedent by which it can be guided and it is continually changing, in detail, as experience teaches which features are work-

able, which need to be discarded and what innovations are necessary. It is, therefore, inevitable that this book will contain some inaccuracies, as the economic machinery, in minor details, is changing even while it is being written about.

Scott Nearing.
Jack Hardy.

New York City,
April 5, 1927.

INTRODUCTION

THE fundamental principles underlying Soviet economic organization are:

1. The socialization of all basic productive forces such as land, mines, railroads, factories.
2. The organization and direction of productive forces on a unified, scientific plan.
3. The elimination of private profit and the social use of all economic surplus.
4. Universal obligation on all able-bodied adults to render some productive or useful service . . . "He shall not eat who does not work." (Article 18, Soviet Constitution.)
5. Active participation, by the workers, in the direction of economic life.
6. The widest possible provision, among all who render productive and useful service, of:
   (a) Food, clothing, shelter, health service.
   (b) Education, recreation, cultural opportunity.
7. "The abolition of exploitation of men by men, the entire abolition of the division of the people into classes, the suppression of exploiters, the establishment of a Socialist society and the victory of socialism in all lands." (Article 3, Soviet Constitution.)

Surrounded by a hostile world, and desolated by war, revolution, counter-revolution, blockade, armed intervention and famine, the workers and peasants of the

Soviet Union have not yet been able to put all of these principles fully into practice. Until 1920-21 the Soviet State was fighting for its life. It is only during the succeeding years that peaceful economic construction has been possible

During the entire period since the Revolution, however, the Soviet authorities have been able to keep the reins of the State firmly in their own hands and to maintain the Soviet form of government. They have established a State built upon economic rather than upon geographical lines. The Soviets are designed to represent directly the productive units of the country, —the factory, the mine, the office, etc. Profiteers are in harsh disfavor, and are excluded by law from electoral privileges.

With this foundation of economic principle and political organization, Soviet Russia has been able, in the past seven years, to create an economic organization that is without parallel anywhere else in the world. The nature of that organization and the character of its activities will be described in the following pages.

Any person visiting Russia in 1927 cannot fail to be impressed by the rapid forward movement that is taking place in her economic life. One titled Englishman, Sir Thomas Allen, revisiting the Soviet Republic in 1926 after having seen it in 1922, gave his impressions thus: "Change, change, everywhere; and for the better. Better railway stock, with sleeping and refreshment car accommodation, and improved stations. Hotel accommodation restored to normality and completely wanting on our last visit [four years ago.] A brisker and brighter movement among the people. Thousands of shops, formerly empty, now animated with business life. People with apparent purchasing power waiting

in queues for textiles, which they are eager to secure. State, cooperative and private business rivalling each other for the customers' trade. The motor bus, motor car, the electric passenger car—practically all new. The people better clothed, and to all visible appearances more prosperous. A general impression of life and movement." [1]

During the latter months of 1926, a non-communist technical adviser employed by the Soviet Government attempted to account for the unprecedented strides being made by the Russian economic system, and stated that Russian industry contained within itself hidden potential possibilities. To this explanation V. V. Kuibysheff, President of the Supreme Economic Council, countered by stating that Russian economic progress was due, not to "hidden possibilities" but to the fact that, in the Russian system, "economic life proceeded according to a plan." [2]

Just here is to be found the explanation for whatever success the Soviets have achieved—Soviet economy is founded upon a carefully considered and closely watched *plan*. Instead of allowing the competitive chaos so prevalent in modern capitalist countries, the Soviets have almost completely abolished competition and have placed the direction of economic life under a special commission of "planned economics." This body plans minutely and elaborately for every branch of the country's industrial life, and publishes programs in advance for one and often as many as five years. Industry, agriculture, finance, transport, shipbuilding, etc., are each made to dovetail with the needs and capacities of each other and of the population.

Industrial production is dependent upon raw materials and machinery; imports are regulated by export

possibilities, which in turn depend in large part upon agricultural production. By unified planning for every field of economic life, the Soviet Union has, within the brief period of six years, produced economic results that have astounded the western world.

Two or three of these results should be briefly noted:

1. The budget was balanced and the currency stabilized without external loans or credits. No such record has been made by any of the other major European belligerents. The Soviet Union accomplished this result in 1924, before it was achieved in Britain, Germany, France, Italy, or Belgium.
2. The volume of production has increased each year since 1921. No other principal nation can show an equally steady gain in productivity.
3. The material well-being of Soviet workers has been improving steadily since 1921. No other European country can make a similar showing.

In a world recovering from the shocks of war, revolution, and famine, such achievements are sufficiently noteworthy to justify a careful inquiry into *the economic organization of the Soviet Union.*

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PART I

THE ECONOMIC BACKGROUND

THE ECONOMIC ORGANIZATION OF THE SOVIET UNION

CHAPTER I

THE ECONOMIC MACHINE INHERITED BY THE BOLSHEVIKS

THE cycle of social revolution is marked by three clearly differentiated stages: (1) the period of propaganda and preparation; (2) the seizure and consolidation of political power; and (3) the reorganization of social relationships upon the basis of a new economic foundation. The Soviet Union is now in the third stage, which Lenin characterized as "the most difficult, but also the most promising problem, for only its solution will give us Socialism." [1] *The economic organization of the Soviet Union,* the final but in many respects most complex phase of the social revolutionary cycle, is now engrossing the energy and attention of the Soviet Union.

"In every Socialist Revolution," Lenin wrote not long after the seizure of power by the Soviets, "the main task . . . consists in the positive and constructive work of establishing an extremely complex and delicate net of newly organized relationships covering the systematic production and distribution of products. . . . With the creation of a new—the Soviet—type of state, offering to the oppressed toiling masses the opportunity to

participate actively in the free construction of a new society, we have solved only a small part of the difficult task. The main difficulty is in the economic domain; to raise the productivity of labor, to establish strict and uniform state accounting and control of production and distribution, and *actually to socialize production.*" It is only after the accomplishment of these ends that "we shall be able to say that Russia *has become* not only a Soviet, but a Socialist republic." [2]

"There are historical periods," added the leader of the Bolshevik revolution, "when it is most important for the success of the revolution to pile up as many fragments as possible—that is, to blow up as many old institutions as possible. But there are periods when enough has been blown up, and it becomes necessary to turn to 'prosaic' (for a petty bourgeois revolutionist's 'uninteresting') work of clearing the ground. . . . One must be able to find at any moment the particular ring in the chain which must be grasped with all our strength." [3]

What was there in Russia which the Bolsheviks could "grasp with all their strength"? What kind of an economic machine was taken over by the Soviets? The answer to these questions may be found in an examination of the economics of pre-revolutionary Russia.

While the industrial revolution was approaching maturity in all of the western nations, the economy of Czarist Russia still bore the imprint of feudalism. As lately as 1885, the industrial activity of the country was largely confined to the casual home industries engaged in by the peasantry during the winter months

when agricultural labor was not possible. This home production satisfied the needs of the peasants. The manufactured products needed by the nobility were imported from abroad. There were very few factories; their production was insignificant; their methods were of the most primitive.

Iron and steel production are recognized as the backbone of the industrial system. Russia's industrial position, in the closing years of the nineteenth century, can be gauged by the fact that in 1887 her total production of cast iron amounted to 594,000 tons; iron—362,000 tons; and steel in ready products to 157,000 tons. In 1893 there were only 55 new companies, with a total capital stock of 56.6 million roubles, chartered during the year in the entire domain of the Czar. Russians were obviously not "going into business" at any great rate.

Capitalism, however, which began to invade the country about 1890, expanded rapidly in the next two decades. British, German, French and other businessmen built factories and opened mines. By 1914 there was a sprinkling of industrial establishments across Russia. Between the Dnieper and the Don were to be found coal mines. In Polish Domborva, the Donetz Basin, the Moscow district and the Ural district, metallurgy was developing. In the region of the Caspian Sea, and the valleys of Terek and Kuban the production of oil was expanding. The textile industry was entrenching itself in the provinces of Moscow, Vladimir, Kostroma, Yaroslavl and Lodz, Poland. In southwest and central Russia there were extensive sugar-beet plantations and numerous refineries. Lesser industrial centers were to be found in other sections of the Empire.

In 1910 there were about fifteen thousand factories,

mills and foundries in Russia, with a total annual production exceeding three billion roubles. Two years later (1912) there were over seventeen thousand establishments employing more than 2 million workers, with an annual product valued at 4,707 million roubles. About one quarter of the total number of workers was engaged in the textile industry, the value of the product of which was about one third of that of the total industrial production of the country. In 1910 there were 145,000 flour mills in the empire; in 1914, 297 sugar refineries; in 1913 there were about 2,500 metallurgical mills and foundries, turning out a product valued at about 600 million roubles a year.

These figures, however, which seem large in terms of absolute values, were insignificant in proportion to the needs of a country covering a sixth of the land area of the globe, with a population exceeding 178 million people. The United States, with two thirds of the area and population, had 275,791 manufacturing establishments alone in 1914 with 7,036,247 wage earners and an annual production of $24,246,000,000. The total capital invested in all of the commercial and industrial stock companies in Russia (exclusive of railroads and banks) was less than two billion dollars—about one-ninth of the amount invested in the stocks, bonds, etc., of the railroads of the United States and just a little more than the stock and bond capital of a single American concern—the United States Steel Corporation.[4]

The average per capita production and consumption of cast iron and coal may serve as further indices of Russia's pre-war industrial development. In 1910 the annual per capita consumption average for cast iron was 1½ poods.* In the same year it was 14 poods per

* 1 pood = 36 pounds.

head in the United States, 11 poods in England, and 10 poods in Germany.[5] The per capita production of coal prior to the World War was one of the smallest in the world. It was 0.2 metric tons, as compared with 6.0 tons in England, 5.1 tons in the United States and 3.8 tons in Germany.

These unfavorable comparisons held true for other products. In 1909 the per capita production for all industrial products barely reached $160. In the United States, the same year, it was approximately $2,280. Industrial methods were primitive; production was low; imports satisfied the industrial requirements of the population. The Russian Empire was in the process of industrial growth, but still in the period of its infancy.

One of the greatest shortcomings of the country was its inadequate system of railways. The mileage, 46.6 thousand miles, was only one-sixth that of the United States and not much more than that of Canada—whose population was less than one-twentieth as great. If, on the other hand, the comparative land areas of Russia and the United States be taken as a basis of comparison, Russian railway mileage was only one-twelfth that of this country. Large stretches of arable land, particularly in Siberia and Turkestan, were compelled to lie idle because of the scant attention given by the Czarist government to the provision of transport facilities.

The same backwardness held for the rolling stock on the roads. Russia's freight cars, 470.9 thousands in number in 1912, were old, dilapidated and much in need of repair. The carrying capacity of Canadian freight cars, which were only about 39 percent as numerous and which served a population less than 4½ percent as large, was about equal to those of Russia at the beginning of the war.[6]

Canals and inland waterways were in the same inadequate state of development. Her strikingly long inland waterways, reaching 200,000 miles, would have served Russia valuably as a means of transportation, if properly developed and connected by short canals. The government, however, feared that canal and river transportation would compete dangerously with the railways, which were in large part State-owned. The result was that it did next to nothing for the improvement of water transportation, and such provision as it did make was insufficient even to keep existing canals in repair and in good working condition. The entire length of the canals in pre-war Russia reached only about 550 miles.[7] The immense water power possibilities of the country's swift streams and rapids were also allowed to fall into practically total neglect.

The Russian merchant marine occupied the same insignificant position that was held by her other transportation facilities. Her merchant marine of 500,000 tons in 1912 was outrivalled in size by even such small countries as Spain, Italy, Sweden, Austria-Hungary and Holland. In the speed, quality and size of her ships she compared even less favorably. In 1913 only 7.5 percent of the freight coming into and leaving Russia by water routes was carried in Russian bottoms.[8]

Russian agriculture showed favorable signs of progress in the decade preceding the World War. The participation of the country in the world market for most agricultural products, particularly grains, was of relatively high importance. Between the years 1907 and 1912 she averaged 29.6 percent of the world's production of wheat, 28 percent of the world's production of corn, 18 percent of the oats, 13.8 percent of the rye and 9.7 percent of barley. Her export of the the five principal

grain products was 28 percent of the exports for these products of all of the countries in the world.

These large figures, however, were due almost entirely to natural conditions, and to a plentiful supply of agricultural labor, rather than to modern productive methods. In spite of the fact that she had the richest soil in Europe, the production per acre was twice as great in Austria and France, three times greater in England and Germany and four times larger in Denmark. All of her competitors in the world market had far greater average yields per acre than did Russia. Prior to the war, the per capita value of agricultural products in the United States was about $200 per year. In Russia it was $30.

This was due to a variety of causes. The use of agricultural machinery, which had been taken up rapidly by her competitors, was very limited in the Russian Empire. The country made practically no use of artificial fertilizers. Her live stock was not only poor in quality and size, but almost negligible in number. She had only 390 head of cattle per 1,000 inhabitants, which was one-fourteenth the average of Argentina, one-twelfth that of Australia and less than half that of the United States. If the inferior quality of her stock be taken into consideration, the significance of these comparisons becomes even more striking.

In all of Russia, including Siberia, only 5 percent of the land area was under cultivation in 1912. To make the remainder adaptable to cultivation, the government did almost nothing by way of reclamation, irrigation, systematic colonization, railroad construction, etc.

Had all of the latent resources of the Russian Empire and all of her productive forces been allowed entire freedom to develop, Russia might have been a rival of the more advanced industrial powers. The prime barrier

to this development was the decrepit bureaucracy, which was entrenched in the State and which placed innumerable obstacles in the way of the free investment of capital and hampered the growth of business in all directions.

According to the general census of 1897, which did not list all of the categories of bureaucrats, there was one bureaucrat in Russia to every 89 adult male members of the population.[9] Throughout the following decade and a half, the proportions were not much diminished. All of the higher members of this bureaucracy were recruited from the landowning nobility, and the complexion of the State power was therefore decidedly feudal.

This feudal ruling group was bent solely upon advancing its own personal and class interest. It absorbed large portions of the budget for its own unproductive ends. Between 1907 and 1914, for example, while appropriations of one rouble per head were being made each year for educational purposes and a half a rouble a person for agriculture, the "costs of administration" rose from 282 million roubles to 480 million roubles. In 1914, 2,000 million roubles—four-sevenths of the total budget—were appropriated for unproductive purposes.[10] To witness the rise of a powerful Russian business class, which would inevitably challenge the feudal complexion of the State administration, was a wish furthest from the minds of the feudal bureaucrats who were ruling the Russian Empire.

As a result of this retarded economic development, Russia became dependent upon imports from abroad for her requirements in the way of raw materials, manufactured products and machinery. On the other hand, in the internal capitalistic development of the country, foreign capital played a dominating role. "Some

branches of Russian industry," wrote an ex-deputy of the Duma in 1913, "exist very largely by means of foreign capital." [11]

Russia's imports consisted primarily of cotton, wool, machines, spare parts, tools, metals and metal products, coal, etc., etc. In all, Russia used to get from abroad about 13 million tons of goods and materials yearly, the annual average value of which, between 1909-1913, amounted to 1,139.6 million roubles. Deficient in her own productive forces, these imports became indispensable to the maintenance of the economic life of the country.

To pay for these imports, Russia had nothing but her agriculutural surplus. In the five year period preceding the war, her export items averaged 1,501.4 million roubles per year. This gave to her, over the five year period, an average annual foreign trade surplus of 361.8 million roubles.

This, however, is only a partial view of the picture. "Invisible items" were driving the country toward economic paralysis and bankruptcy.

Without any industrial surplus to apply to home construction, Russia had become a borrowing nation, dependent not only upon imports of machinery and raw materials but also upon imports of capital. When railroads were built, foreign capital was borrowed for the purpose. Municipalities borrowed abroad to develop their public utilities. Private industrial enterprises sold their securities on the foreign market. Large items of imports represented investments by foreign concerns within Russia upon which interest had to be paid to foreign creditors. About 100 millions roubles annually was being paid to foreign shippers for handling Russian seaborne trade.

On January 1, 1914, Russia's foreign debt amounted to 4,229 million roubles, and her domestic debt to an additional 4,582 million roubles.[12] It is a matter of significance that about 59 percent of the foreign debt was contracted during the twenty years preceding the war. The net increase of the domestic debt during the same period was only 13 percent. Russia, before the outbreak of the World War, had a foreign indebtedness greater than any other country in the world.

For the decade preceding the outbreak of the war, Russia's foreign expenditure for "invisible items" was upward of 400 million roubles annually.[13] This was in excess of the favorable trade balance which was her only source of income for payments abroad. The country was, therefore, not only importing capital for current expenses and for her economic development, but it was also meeting interest and amortization charges by new borrowings. This is another way of saying that she was facing bankruptcy when the World War started in 1914.

The gears of the Russian economic machine could not continue to mesh without regular supplies from abroad of machines, tools, spare parts and raw materials. The war played havoc with this economic relationship.

In the five years preceding the war about 44 percent of all Russian imports were from Germany. These German items were among the most essential ones which came into the country, consisting in large part of ores, metals and machinery. Russian industry was equipped with German machines which depended for spare and repair parts upon supplies from the original manufacturers. It was probably no exaggeration when it was said that "Germany's relation to Russia may be expressed by saying that she was the Organizer of Russia's

industry; the Source of her raw and partly manufactured supplies; was her Banker and Intermediary in foreign trade." [14]

All of the necessities with which Germany supplied Russia ceased coming into the country when the two powers took up arms. Moreover, intercourse with foreign markets was almost entirely interrupted when Russia was blockaded. Aside from items destined for purposes of prosecuting the war, goods imported during the war years were negligible in amount.

Had the war ended quickly, Russia might have stood the strain. But the 50 years of diplomacy which had created a "balance of power" pitted two giants against each other who were not easily felled. The war dragged on too long for imperial Russia. War and blockade delivered blow after blow at the still undeveloped Russian economic system. Gradually it disintegrated—and then, suddenly, it collapsed.

As a result of the blockade, one observer wrote that "during the first three years of the war the total tonnage of ships which arrived at the open ports of Russia was not much more than the tonnage which now arrives at the ports of the United Kingdom during two weeks only." [15] Industry, transport and agriculture were all strangled by the cessation of foreign trade.

Fifteen million men, in all, were taken out of the ranks of Russian industry and mobilized into military service, where they consumed much but produced nothing. The military reverses in Galicia, the retreat through Poland and other defeats on the field of battle were also severe economic disasters. They took away from Russia many of her chief industrial, mining and grain centers.

Agriculture was the first to suffer. Ten out of 18

million adult male agricultural workers had been taken away from the fields and placed in the army. The average areas under cereal cultivation fell by over 7 percent in 1916—in some provinces by as much as 30 percent. Many of the implements, tools and accessories which the peasant used in his work were imported articles. In September, 1917, two months before the seizure of power by the Bolsheviks, 5 million scythes were urgently needed. Home industries could supply only 20,000. Production consequently fell away and the food situation became critical.

The effects of the food shortage were accentuated by an almost complete disorganization of transportation. Materials for repair work were not available, and the railroad shops could not meet the demands of wear and tear. The roads also suffered from fuel-hunger, and the fuel situation grew very critical by 1916, after British and Silesian imports of coal ceased entirely and the Dombrow district was occupied by the enemy. The facilities of this crippled transport system were overtaxed by purely military demands, and could not distribute even food and fuel for civilian needs.

Industry suffered even more. Forty percent of its workers were at the front, while the imports of material and machinery, without which it could not survive, were cut off entirely. Production fell in many fields to 25 percent of pre-war levels, and over half of this reduced production was diverted to the army. Even shops which were working upon military orders were so short of fuel and materials that they were compelled either to shut down for longer or shorter periods or to limit their production. Public services, tramways, electric power stations, etc., were affected similarly.

By 1917 the population of Russia was starving.

Women and children in the cities stood in long queues for hours, with the thermometer far below zero, in the hope of being able to purchase a pound of bread or a pint of milk. For months it was impossible to secure as much as an ounce of sugar.

At the beginning of 1916, 20,130 railway cars were under repair. By January, 1917, the number had risen to 25,810 but the shops were helpless in the matter. By May, 1916, 3,387 locomotives out of a total of 19,951 were under repair and in May, 1917, 33 percent of the locomotives on many of the principal lines had broken down. In the repair shops production was nearly paralyzed.[16]

The textile industry was able to allocate only 25 percent of its pre-war output to the needs of the civilian population. By September, 1917, the production of coal in the Donetz Basin fell to 25 percent of what it had been a year earlier. Production of pig iron in the same district fell from a monthly average of 14.7 million poods in 1916 (already considerably below pre-war) to 9 million poods in October, 1917.[17] Necessities became almost unobtainable. A month's earnings would not buy a pair of shoes. Hardware, tools, etc., passed out of sight.

Such was the economic situation in Russia *before* the Bolsheviks seized the reins of power in November, 1917. Agricultural production was seriously restricted. Manufacturing, mining and transport had shrunken to a small fraction of their pre-war volumes. Military defeats and bureaucratic inefficiency made the situation worse. From the outset of a four years war the Russian economic system was doomed to collapse.

CHAPTER II

ESTABLISHING A PROLETARIAN STATE

On November 7, 1917, the Bolsheviks seized control of the Russian State. They promised "Power to the Soviets," "Peace to the People," and "The Land for the Workers."

On the same day that the Winter Palace was captured, the Second All-Russian Congress of Soviets set out to fulfill these revolutionary aims and to lay the structure of the Soviet society. The means of production and distribution were socialized; seizure of the land was authorized; the war was repudiated and a peace appeal was broadcast to all of the belligerent nations.

By a decree of November 14, 1917, "Workers' Control" was inaugurated over factories and transportation units. The government did not yet feel fitted to cope with the problems of industrial management and did not immediately assume the burden. Transport was taken over by the State, but the owners and managers of factories were left in temporary charge of their plants. Strict control, however, was vested in workers' committees who were to see that the establishments were kept running and that the owners, managers and experts did not practice sabotage against the proletarian State. These committees were to have access to all books, accounts, etc., and were empowered to supervise production, ascertain costs and enforce stringent laws for the protection of labor.

This system did not prove very successful. The owners and their managers generally refused to accept labor control and were, therefore, expropriated completely by the Soviet officials. The metallurgical and coal industries were among the very first to be entirely nationalized.

The Soviet Government also immediately proclaimed the confiscation, without compensation, of the estates of the landed proprietors and the crown lands, together with all of their movable and immovable property. This was in turn transferred to agrarian committees, or district Soviets, which were made responsible for its distribution and administration. The amount of land assigned to each individual was made dependent upon the particular conditions prevalent in each locality.

Each peasant was given the right to till his land individually, but the title to it remained with the State and the land could not, therefore, be sold, leased or mortgaged. Hired labor was not permitted, and no person was allowed to hold more land than he and his family could cultivate.

Individual farming—small scale, individualistic production—was looked upon askance by the government. Plans were therefore made for communizing agriculture and establishing large-scale "Soviet Farms" as fast as possible. A decree issued in February, 1918, declared that "it is necessary to pass from the individualistic forms of land exploitation to collective farms. Large soviet estates, rural communes, group agriculture, and all other forms of collective use of land are the best means for achieving this object, and therefore all forms of the individual use of the land should be regarded as merely temporary and doomed to destruction." By 1921, 4,391 "Soviet Estates" with a total area of 2.124

million dessiatines* had been established, while agricultural "communes," "artels," and "public tilling organizations" together numbered 15,121 with a combined area of 1.293 million dessiatines.[1]

The decree concerning peace announced that the Government of Workers and Peasants had issued by wireless a proposal to all of the belligerents for an armistice upon all fronts as a preliminary to a general peace. The allied powers refused to recognize the authority of the new regime and made no official reply. The German Government responded, an armistice was negotiated and, on December 22, 1917, peace negotiations were begun at Brest-Litovsk.

After considerable maneuvering on the part of both sides, a rupture of negotiations and another advance of the German armies into Russian territory, the Russian delegation signed the Treaty of Brest-Litovsk on March 3, 1918, with the statement to the Russian workers that "It is a peace which is being dictated at the point of a gun. It is a peace which the Revolutionary Russia is compelled to accept with its teeth clenched." Lenin said, when the treaty was being ratified two weeks later by the Fourth All-Russian Congress of Soviets, "an imperialistic brigand knocked us down. . . . We were compelled to sign a Tilsit peace."

The most valuable frontier regions of western Russia passed out of her sovereignty as a result of the peace of Brest-Litovsk. In all, she lost 301,000 square miles of territory; 56 million inhabitants, or 32 percent of the entire population of the country; 13,350 miles of railways, one-third of Russia's total mileage; 73 percent of the total iron production; 89 percent of the total

* 1 dessiatine = 2.7 acres.

coal production; and 5,510 factories, mills, breweries, etc.[2]

But even after the disaster of Brest-Litovsk, Russia possessed a stupendously large material basis for industrial development, and for the production of fuel, iron, machinery, chemicals, etc. She retained the Urals with their stores of ore; Siberia with its tremendous resources of fuel; the petroleum supplies in Caucasia and the southeast; turf in Central Russia; and many regions possessing vast resources of lumber, water power and raw materials for industry. "Thanks to the peace obtained," wrote Lenin, "in spite of its oppressiveness and its insecurity—the Russian Soviet Republic is enabled for a certain time to concentrate its efforts on the most important and most difficult side of the Socialist revolution, the problem of organization." [3]

A not very long experience, however, sufficed to demonstrate that the opportunity for peaceful economic construction had not arrived. In 1918 the real war danger began and until the end of 1920 the Soviet Republic was engaged in a series of wars against internal and external foes to determine its very right to existence.

In a first attempt to strangle the Soviet Republic through economic pressure, the entente allies drew the so-called *cordon sanitaire* about her. Ships were denied clearance papers if headed either to or from Bolshevik ports. Post and telegraph facilities were also cut off. The blockade became so air-tight that even a shipful of medical supplies headed for Russia from a Scandinavian port early in 1919 was seized by the British naval forces.

Civil War broke out under the leadership of reactionary noblemen and desperate officers who were frequently

equipped with arms and supplies from the entente allies. Strikes and sabotage were resorted to and military attacks were sponsored under the command of Alexeiev, Kornilov, Kaledin, and others.

So long as it had merely to deal with domestic foes, the Soviet Government had little difficulty in maintaining its position. External attacks were more serious.

The first to attack were the Czecho-Slovaks. These were deserters and war prisoners. Arrangements had been made that they were to leave Russia via Vladivostok. Under French instigation they began the attack upon the Russians at Tcheliabinsk on May 26, 1918. They were able to occupy a large stretch of the Trans-Siberian Railroad and a number of towns in eastern Russia and Siberia including Penza, Samara, Novo-Nicholaevsk, Omsk and other cities. They deposed the Soviets wherever they went and set up counter-revolutionary governments.

Very quickly it became apparent that the allies were out to "break" the Soviets. Under the pretext of "rescuing" the Czecho-Slovaks, one inter-allied force, comprising largely Americans and Japanese, seized Vladivostok; another, in which British and American troops predominated, occupied Archangle. The Germans also enlisted themselves in the cause of exterminating the "Reds" and attacked the Ukraine. They pushed on past the Dnieper and the Don and, leaving a Hetman, Skoropadsky, to govern the country, continued to Odessa and the northern shores of the Black Sea. Simultaneously, their allies, the Turks, attacked in the Caucasus. When Germany collapsed on the western front, French troops were sent into the Ukraine to replace the retiring Germans.

The cessation of the European conflict brought no

relief to the Russians, but rather it was followed by the attacks of Kolchak, who penetrated almost to the Volga before he was repulsed; of Deniken, who, pushing northward from the Caucasus, overran the Ukraine and occupied Kiev, Kursk, Kharkov and Orel; while at the same time Yudenitch led an unsuccessful drive against Petrograd. In the spring of 1920 a final attempt was made to overthrow the Soviets through the Poles. The peace between Poland and Russia was not signed until March, 1921.

Then, to add to her other troubles, severe drought overtook considerable sections of eastern Russia and the entire southeast. The famine of 1921 was more severe and extended over a larger area than any other on record. Famine conditions affected the Volga provinces as well as the provinces of Zaporozhye, Yekaterinoslav, Nikolayev. Certain districts in the provinces of Odessa and the Donetz as well as in the Crimea and in the southeast were similarly affected. The result was disorganization of agriculture over all of this area.

The Russian economic machine had all but collapsed from war pressure before it was seized by the Bolsheviks. It was only by a super-human effort that any remnants were saved from the ruins after the weakened economic structure was hit by successive waves of the blockade, sabotage, counter-revolution, intervention and famine.

The country's meager supply of skilled workers was still further depleted when the man-power of the nation was returned to the military fronts. The unorganized revolutionary masses had, of course, no trained military leadership. Those who were most competent in the industrial field were taken from their posts and sent to the battlefields. Mechanics left shops which could ill spare them; engine drivers were compelled to abandon

their cabs; factory managers were called to head leaderless regiments of the Red Army.

The regions fought over by the contending armies were desolated. Cities were sacked, industrial equipment and farm machinery was destroyed, mines were flooded, cattle were carried off, bridges were blown up, buildings were destroyed, railways damaged, etc. Only a very limited area in Central Russia and in the north escaped from the ravages of the Civil War and intervention.

All of the industrial and food sections of the country fell into the hands of the enemy for longer or shorter periods of time. The operations of Denekin in 1919 and of Wrangel in 1920, either in or about the Donetz basin, ruined Russia's coal producing center and shut the entire country off from its supply of fuel. The granaries of the Ukraine, the North Caucasus and Siberia also fell into the hands of the enemy. Supplies of food, as well as fuel, were cut off. Moreover, troop and military supply trains had first call upon the inadequate transportation system and scarcely any facilities were left for the handling of civilian needs.

National economic unity, under these circumstances, was almost entirely destroyed. Each district could depend only upon itself. The Ukraine, the Don, the Caucasus, the Volga districts and Siberia all became a number of "little Russias." Factories could not get the supplies which they required from other parts of the country. The textile and metal factories of Moscow and Petrograd could get neither cotton from Turkestan nor fuel, iron or minerals from the Urals or the Donetz. And, of course, the blockade effectively prevented any purchases from being made abroad.

Faced with this desperate situation, the country was

forced to apply military methods to industry and agriculture. The revival of industry must of necessity await the return of peace. The military campaigns became a first call upon the resources of the country. With all normal economic relations disrupted, mobilization of every ounce of available resources was resorted to as the only possible means of supporting the war fronts, feeding and equipping the army, and supplying the immediate necessities of the civilian population. Economic life was therefore organized upon the basis of "War Communism."

Industry was militarized and rigidly centralized. Gradual nationalization was prescribed and extended first to all of the more important units and eventually (in 1920) to all enterprises employing over five workers with machinery or ten without.

Ownership of all of the nationalized enterprises was vested in the State, which controlled them through the Supreme Council of National Economy. In the Supreme Council were 59 administrative units, or "Head Centers," each charged with the administration of a separate branch of industry, as the Central Administration of the Leather Industry, Paper Industry, etc.

The free exchange of commodities ceased. Each industry turned its entire output into the hands of the State. Military requirements were supplied first. Wages were paid in kind and available necessities apportioned to the civilian population by means of ration cards. There was not very much to distribute in this way, however, and starvation was prevalent in all of the towns and cities. Available supplies of fuel and raw materials were also distributed among the various industries by the State. Not only was big industry conscripted in this fashion, but the surplus stocks of grain

were confiscated from the peasantry as well as the raw materials and manufactured products of the domestic workers and artisans.

The peasants were allowed to keep only as much of their produce as was needed by themselves and their families. The remainder was requisitioned by the State, which undertook, in return, to supply the peasantry with the manufactured products which they needed—such as clothing, foot-gear, implements, etc. However, the army swallowed up practically the entire output of the factories and very little was left for distribution among the peasants. They therefore received almost nothing for their product save worthless paper money. The food requisition system amounted to virtual confiscation.

Throughout the entire period of military communism, production showed a marked tendency downward. The scanty food supply received by the workers rendered them physically incapable of performing a regular day's work. They were often compelled to abandon work for full days at a time in order to search for food. The condition of industrial equipment, moreover, and the supplies of raw material and fuel were such that production would have fallen steadily, even had a full labor supply been available. Production of coal fell to 25 percent of pre-war by 1920. Ore fell to 2¼ percent of pre-war; engines and ploughs to about 14 percent; chemicals to between 5 and 6 percent; etc.

In 1920 the external situation began to clear. One by one Russia was able to repulse her military foes, while on the international diplomatic field the degree

of respect which she fostered seemed to be directly proportional to the prowess which she demonstrated upon the field of battle. Even proud England, who hitherto had met all propositions to treat with the Socialist Republic with the reply "No dealings with thieves and murderers," sat at the treaty table with the diplomats from Moscow.

On January 16, 1920, a resolution of the Supreme Council at Paris raised the blockade against Russia. In the spring, peace treaties were signed with Esthonia and Latvia. Sweden signed a trade agreement and resumed commercial relations in May. A Russian delegation headed by Krassin arrived at London and was received at Downing Street.

In July it seemed likely that a trade agreement was about to be signed between England and Russia. At just that time, however, the Red Army was being defeated by the Poles at Warsaw and the British Government became more haughty and broke off negotiations. By November both the Poles and Wrangel had been severely drubbed and once again Downing Street climbed down. On March 16, 1921, the English representative, Sir Robert Horne, finally affixed his signature to the Anglo-Russian Trade Agreement. In May the British High Court of Appeal handed down the ruling that the conclusion of the Trade Agreement constituted a recognition of the *de facto* government of Russia.

Other trade treaties followed quickly. In April, 1922, the Treaty of Rapallo with Germany was signed. Norway, Lithuania, Finland, Czechoslovakia and Poland were the other nations which entered into relations with the Soviets between 1920 and 1922.

The Soviet Republic underwent one additional im-

portant change before its economic relations were organized upon their present basis. This was the adoption, in 1921, of the New Economic Policy.

The return of peace in 1920 and 1921 brought the country face to face with the problems of economic construction. Bases had to be laid for industrial rehabilitation, for trade with foreign countries, and for the receipt of railway equipment, bridges, and other forms of goods and capital from abroad.

When the Soviets seized control of Russia in November, 1917, nationalization was not general. "Workers' Control" had been declared almost immediately after the November Revolution, but the owners had, in many cases, been left in charge of their plants and the complete militarization of industry was resorted to only as a war measure—first against internal sabotage and later as a result of the armed intervention. As Leo Kamenev, President of the Moscow Soviet, observed, "Purely economic reasons, which should have given to the nationalization policy a systematic character, received secondary consideration. Political considerations compelled us to place in the hands of the proletarian government a greater number of enterprises than we could administer in the interests of the national economy as a whole." [4] Lenin pointed out that " 'Military Communism' was made necessary by the war and the state of ruin. It did not and could not meet the problems of proletarian policy. It was a temporary measure." [5]

As long as the Civil War continued, with the possibility of the return of the landlords, the industrial bourgeoisie and the bureaucracy if the Whites succeeded, the peasants, however grudgingly, submitted to the requisition of their surplus foodstuffs and the workers shouldered their share of the burden. With the return of

peace, however, the peasants, in particular, began to demand relief from the system of requisitions. In 1921 various alarming symptoms warned the government that the time for change was at hand. Peasant riots in Tambov, and the Kronstadt revolt in March finally determined the government to reorganize its economic policy.

As a starting point, the All-Russian Central Executive Committee in March, 1921, issued a decree for the abolition of the grain levy. In its place a definite tax, amounting to about 10 percent of the crop (which the peasant, at his discretion, could pay in kind) was substituted and free trade with the remainder of the crop was legalized. The cooperatives, hitherto under State control, were restored to a self-governinng basis. They were fostered and encouraged as the best instruments through which to teach the peasants methods of cooperative work, supply them with their needs and get their surplus products upon the market.

Decrees of May 17th and July 7, 1921, restored freedom of trade to industries employing under 20 persons. The larger establishments were organized, under the jurisdiction of the Supreme Economic Council, into State Trusts and Syndicates which were to operate on a self-governing and commercial basis. The Supreme Economic Council was also authorized to lease to individuals or associations idle factories which it could not itself put into operation. For the development of natural resources, the government announced its willingness to grant to foreign capitalists large-scale concessions which were to run for periods of time definitely stipulated in each concession contract.

Foreign trade remained unaffected by the New Economic Policy. It continued to be a government monop-

oly. Limited freedom of internal trade was allowed subject to prices fixed by the Commissariat for Domestic Trade.

The reestablishment of economic relations upon a commercial basis necessitated the resumption of financial operations. The State Bank was therefore reopened and authorized to perform credit and deposit functions. The gradual reestablishment of commerce also necessitated the restoration of money as a medium of exchange. The State Bank was, therefore, also made a bank of issue and money once again entered into circulation.

Under the New Economic Policy the State retains control of the basic and large-scale industries, finance, credit, transport and foreign trade. Private capitial is allowed to function in fields in which the State does not at present possess the resources to operate. However, the State aims to drive out private economic enterprise gradually, eventually taking possession of the entire economic structure and directing the course of events toward the establishment of a complete Socialist society.

In some minor respects the economic structure of the Soviet Union is undergoing continual change. In general, however, it remains upon the same basis as that upon which it was established in 1921 and 1922.

PART II

ECONOMIC FUNCTIONS AND RELATIONSHIPS IN THE SOVIET UNION

CHAPTER III

NATURAL RESOURCES OF THE SOVIET UNION

Older industrial countries of the West are already feeling the pinch of diminished natural resources. Not so in the Soviet Union. On the contrary, the Soviets control a vast and practically untapped warehouse, containing stores of natural wealth as yet unmeasured in extent and barely scratched by industrial development.

The Soviet Union occupies a continuous domain covering a land area of 8,200,000 square miles. This area, nearly three times the extent of continental United States, makes up one-sixth of the world's land area. The Soviet Union is the largest unified geographic area under one political jurisdiction.

The natural boundaries of the Soviet Union are the Arctic Ocean on the north, the Pacific on the east and the mountainous Asiatic ranges on the southeast. At Leningrad the Soviet Union borders for a very short stretch upon the Gulf of Finland and at the southwest upon the Black Sea. Neither of these bodies of water, however, connects directly with the Ocean, while the shores of both the Pacific and the Arctic Oceans are frozen for the greater part of the year. These factors render the Soviet Union a landlocked and essentially continental country—factors having a very important bearing upon its economic relations. Owing to transfers of territory to Poland, and other border states upon the termination of the World War, the present territory of

the Soviet Union is about 93 percent of that ruled over by the former Czar.

Scientific investigation of Soviet resources has not proceeded far enough, in most fields, to produce adequate summaries. Coal and iron are the backbone of modern industry. The reserves and the annual production of coal and iron are a first-rate index to economic position. Although lagging in their productivity, the Soviet Union has ample stores of both these substances.

Surveys made by the government of the late Czar placed the coal reserves of the Empire at 465 billion metric tons. Estimates published early in 1927, however, indicated 428 billion metric tons to be the known coal reserves. In many parts of Siberia coal is available almost on the surface and in the Kuznetz Basin in the Altia district of Asiatic Russia the estimated reserves have been placed as 250 billion tons.

European Russia also has an abundance of coal. The International Geological Congress estimated the reserves of anthracite in the Donetz basin as the largest in the world—over three times those of Great Britain and twice those of the United States. In the Caucasus, there are widely located deposits of bituminous, coking coal of good quality. The Moscow basin contains approximately 8,000 million tons. There are many lesser, though important, areas where there exist, particularly in the mountainous regions, large coal deposits which hitherto have remained untouched, and many areas are wholly unexplored.

Although it is being worked in only a comparatively few districts, rich deposits of iron ore abound in many regions of the Soviet Union. South and Central Russia, the Urals, the Caucasus and Siberia are the principal sections thus far exploited. In the Urals there are whole

mountains of iron ore. The reserves in one region alone are estimated at 500 million tons. Russian iron ore reserves, 1,647.9 million tons in the regions thus far investigated, are sufficient to supply the country with iron for several hundreds of years. Investigations now being conducted are expected to reveal reserves far in excess of those already indicated. One expedition, late in 1926, found new deposits in the Kursk region. These newly discovered deposits exist over an area 200 miles long and to a depth of nearly 500 feet. The iron content of the ore is 50 percent, which makes the real iron deposit about 40,000 million tons; and in no case can it be under 20,000 to 30,000 million tons. All known European deposits total only 13,000 million tons.[1]

Although the Soviet Government is now engaged in making oil surveys, her petroleum reserves are by no means fully known. Enough oil has already been located, however, to place the country's reserves of this fuel far ahead of those of any other nation in the world. Indeed, experts estimate that the Soviet Union possesses 2,874 million tons, or 35.1 percent of the oil reserves of the world.[2] The Baku fields, extending over an area of 2,700 acres, are already world famous and their oil content has been variously estimated at from 300 to 900 million tons. The Grozny and the Emba-Ural fields are also beginning to be worked with notable success. The other chief sections thus far explored are the Maikop district, located in the westerly end of the Caucasus; the Ferghana fields of Turkestan; Tcheleken Island in the Caspian Sea and the Sakholin Island in the Pacific Ocean. Other oil fields are known to exist in North Russia and in East Siberia.

Russia has awakened to the importance of her tremen-

dous supply of "white coal"—the potential water power of her river currents and waterfalls. Estimates put the energy resources of these waterpower agencies at over 65 million horsepower. Compared with other parts of the world—the United States has 37 million horsepower years of water power; India 27 million; Canada 22.5 million; China 20 million;—the Soviet Union has 16 million horsepower years.[3]

Heavy rainfalls in the northern part of the country, which are fairly regular throughout the entire year, have preserved for Russia the greatest forest areas in the world. These forests extend from the Baltic across to the Pacific. Their area, which has not yet been definitely ascertained, has been variously computed by different authorities at from 1,300 million acres upwards. The wooded belts of the United States and Canada together contain about an equal amount of forest area.

The Soviet Republic has, consequently, an immense wealth of timber resources which may in time become the chief article of Russian export. They are so vast that with the proper regulation and reforestation, which will be put into force by the Soviets, their exhaustion is a remote contingency. This timber is of the most valuable varieties, including beech, cedar, fir, oak, pine, spruce, ash, maple, etc. Comprehensive plans are now under consideration for the development and exportation of these products.

The Soviet Union also contains the world's most important deposits of manganese, an essential for the production of steel, chemicals, glass and electrical products. In the district of Chiaturi, extending over the central portion of the basin of the Kviril River, are the richest mines, containing manganese deposits estimated by geologists at 250 million tons. At Nikopol, in Ekaterinoslav,

are located the next largest deposits, and the ore is also to be found at Krivoi Rog, the Crimea, the Ural region and Maikop. The possession of this manganese ore is particularly advantageous for the Soviet Union. Since the world demand for the product far exceeds the supply, it forms a very saleable export.

Copper ore containing a high percentage of copper is found in the Urals, the Caucasus, the Kirghiz steppes and at several points in Siberia. Researches conducted in connection with the main deposits in the Urals have shown reserves exceeding 37 million tons, while the copper content of the entire Urals is estimated at 85 million tons.

Gold and platinum are found within the Soviet borders in their pure state. The deposits of the former metal are chiefly located along the Lena River in Siberia, and in other sections in the east, west and central areas of Asiatic Russia, the Urals and the Caucasus. None of these fields has been worked extensively. The gold-bearing fields of the Aldan area alone cover 1,000 square miles. Regions now being developed contain not less than 9,900,000 pounds of mineral gold reserves.

Platinum, one of the rarer metals, is found in the Urals. Before the war, Russia commanded practically a world monopoly upon its production. Recently wholly unsuspected deposits of potash of first class commercial value were discovered along the River Kama, one of the tributaries of the Volga. The development of these potash deposits will prove a great boon to Soviet agriculture. Besides these more important minerals and fuels, the resources of the Soviet Union include vast deposits, particularly in Siberia, of silver, precious stones, lead, zinc, nickel, mercury, asbestos, chromium, magnesite, phosphates, salts, etc.

The Soviet Union is awake to the possibility of her latent wealth, and is determined to take advantage of the resources so long neglected by the government of the Czar. Geological expeditions are being kept in the field and reports of new findings are reaching the government regularly. Early in 1927, for example, an expedition sent out under the direction of Professor Dobrovsky located hitherto unknown deposits of nickel in the Maikop region of the North Caucasus. These deposits, particularly valuable because of their proximity to large deposits of iron and coal, cover an area of more than 2,000 square kilometers* and compare favorably with the largest deposits in the world in Canada and New Caledonia. Another expedition, sent out late in 1926 by the Moscow Institute of Applied Mineralogy, has located large deposits of mica in the Bolaibinsk region. It is the opinion of the expedition that these deposits are the richest in the world. Tests conducted upon specimens from the deposits indicate that it is of higher quality even than that found in India which, until now, has been considered the best in the world. New radium deposits have been found very recently near Karabasher in Central Asia. Reports of other mineral discoveries are not infrequent.

Metals, fuels and water power comprise only one division of Soviet Union resources. The Soviet Union has 1,414,700,000 acres of productive land, as compared with 878,800,000 acres in the United States; 537,800,000 acres in Argentine, and 465,700,000 acres in India. In cultivated land, the United States stands first with 293,800,000 acres; Russia second with 279,400,000 acres, and India third with 264,900,000 acres. Most of

* 1 kilometer = .62137 mile.

the Soviet Union's land, particularly that in the Ukraine and the North Caucasus, is exceedingly fertile.

The area under wheat in the Soviet Union is 17.5 percent of the total world area under this crop. Moreover, she has 60 percent of the world area under rye, over 20 percent of the world area under barley and about 20 percent of the world area under oats. The livestock on her farms numbers 27 percent of the horses in the world, 10.6 percent of big horned cattle, 12.6 percent of sheep, and 9.5 percent of pigs.

Moreover, the country contains inland navigable rivers, the length of which are very striking. Together, they measure about 200,000 miles. By connecting some of these by relatively short canals, an inland water-way will exist from the extreme west to the extreme east of the country, including Siberia.

This incomplete, birds-eye description will give some idea of what a vast and almost virgin treasure-house the Soviet Union really is. Hers is one of the very few places in the world which are almost self-sufficient. This will be very strikingly true after her latent wealth has been more fully developed.

CHAPTER IV

THE CENTRAL ECONOMIC PLAN

Soviet economy as distinguished from Western economy is characterized by the general elimination of competition and the substitution of a central economic plan for the hit-and-miss methods of conducting private capitalism. "Planned economics," revolving about a central economic plan drawn up in advance, has been one of the chief departures from traditional practice which have come into being as a result of the social revolution in Russia of November, 1917.

The objective which the Soviet economic system sets for itself is, in the language of the Bolsheviks, "to put an end to autocracy in the sphere of economics in the same way as it had been abolished in politics," and to organize the industry and agriculture of the whole country in accordance with a single, general, extensive economic plan. In this manner every link of the system is supposed to dovetail with the others. Thereby the Russians seek to unify their general economic life; to coordinate the whole of agriculture, industry, transport and trade; to drive out private enterprise as fast as it assumes dangerous proportions; and to build up, upon a solid economic foundation, a social order in which the maximum well-being of the entire community becomes the keynote.

Such a program is new to the Western world, which thinks of politics as "public" business and of economics

(mining, manufacturing, transport, merchandising) as "private" business. The Soviet Union was therefore compelled to set up a wholly new system of public machinery to handle mining, manufacturing, transport, merchandizing, etc., on a public basis. There were no precedents. The Soviets were the pioneers.

Under such circumstances it is easy to realize that mistakes would occur and that numerous changes would be made as experience showed which methods would succeed and which would fail. The most important economic changes were introduced into Soviet economy when the New Economic Policy was adopted in 1921. Lesser, but vital changes, are being made constantly. The main features of Soviet economy can be described, however, since they have survived and probably will continue to survive minor changes.

First, a word must be said as to the relation between the economic machinery and the whole Soviet governmental system.

The Soviet Union Congress, composed of 1,500 delegates who meet once a year for ten to twelve days, is the supreme organ of authority within the Soviet Union. Its functions are both legislative and administrative. This Congress alone can amend or modify the Soviet Constitution.

As a rule, however, this Congress of Soviets does not perform the actual work of framing laws. It merely lays down the basic principles of economic, as well as political and other, policy by which the national life of the Soviet Union is to be guided.

The actual work of legislation and administration is carried on by the Central Executive Committee, which is responsible to the Congress of the Union, which vests it with authority between Congressional meetings. This

Executive Committee in turn elects a presidium of 21 members which enacts all current legislation and conducts a large portion of the administrative business. It is at all times responsible to the larger body, the Central Executive Committee, which elects it.

Each of the economic departments of the Soviet State is presided over by a People's Commissar appointed by the Central Executive Committee. These Commissars, together with the commissars of the other, non-economic departments (as war, education, health, etc.), form a cabinet known as the "Council of People's Commissars." The Commissars presiding over the economic departments of the State are the People's Commissars for Labor, for Finance, for Workers' and Peasants' Inspection, for Home and Foreign Trade, for Ways and Communications, for Posts and Telegraphs, for Agriculture, and the Supreme Economic Council.

The entire economic department of the State organization is under the direction of the "Council of Labor and Defense"—a committee of the Council of People's Commissars. The Council of Labor and Defense issues and regulates the general economic program, and applies, through the respective commissariats, the all-Union plans for production, distribution, and exchange. It is, therefore, the central economic authority which coordinates the work of the various commissariats whose activities effect the economic well-being of the nation.

The Council of Labor and Defense was formed in April, 1920, as the result of the reorganization of an earlier body, the Council of Defense, which had been formed late in 1918 for purely military purposes. The reorganization decree entrusted the new body with the all-important task of "the closest possible unification of

all forces on the labor front." [1] However, the Polish War of 1920 and the attacks of Wrangel in the Crimea temporarily prevented the fulfillment of this purpose. Not until the end of the Civil War (1921) was the newly created body able to take up the task of general economic unification and reconstruction.

When the period of armed conflict finally came to an end, the eighth All-Russian Congress of Soviets defined the work and the duties of the Council of Labor and Defense as follows:

> "The C. L. D. coordinates and develops the activity of all departments of State in the interests of the defense of the country and of economic reconstruction.
>
> "To carry out the task imposed upon it, the C. L. D. publishes its decisions, regulations, and instructions, and takes all the measures necessary to ensure their accurate and rapid execution; *in particular it determines the single economic plan* . . . submits it for ratification by the A. R. C. E. C. [All-Russian Central Executive Committee], directs the work of the economic People's Commissariats in accordance with this plan, supervises its application, and decides in cases of necessity on any modifications of its provisions." [2]

The Chairman of the Council of People's Commissars assumes also the chairmanship of the Council of Labor and Defense. The additional permanent members are the People's Commissars for War, the Supreme Economic Council, Labor, Ways and Communications, Agriculture, Home and Foreign Trade, Workers' and Peasants' Inspection, and, in addition, a representative

from the All-Russian Council of Trade Unions. The head of the Central Statistical Department is present at the sessions, but only in an advisory capacity. When affairs of a financial nature are upon the agenda, the People's Commissar for Finance attends with the right to vote upon financial questions.

Decisions of the Council of Labor and Defense are authoritative, and compliance with them is obligatory upon all central and local organizations. Its decisions can be overruled only by the Central Executive Committee of the Union. Thus the Council has very large powers looking to the coordination of every branch of Soviet economy. The Council supervises and gives final approval for all productive plans, and it is able to regulate trade, prices, etc.

It is a matter of importance, however, that while the decisions of the Council of Labor and Defense are thus binding in all spheres of economic life, the Council does not have any machinery of its own for carrying out these decisions. Instead they are communicated to the commissariats affected, whose duty it becomes to see to their execution.

But while it has no administrative apparatus of its own, the council of Labor and Defense has a very intricate and energetic machinery which furnishes to it the data on the basis of which it arrives at its special conclusions. It sets up whole series of inter-departmental, specialized commissions and committees which investigate and report back to it upon such problems as economic planning, labor conditions, electrification, agriculture, etc., etc. Further, it has at its disposal reports from a well-linked up system of "regional economic conferences" and "area economic conferences" set up by local Soviets to study and report upon conditions

and requirements in smaller geographic areas. Even villages have "agricultural committees" and some of the factories hold factory "economic conferences." Through reports from all of these sectors the Council of Labor and Defense keeps its hand upon the pulse of the economic life of the entire Soviet Union, and at the same time brings great numbers of men and women into direct contact not only with problems of local interest but those of the entire economic structure as well. The nation is kept informed of the activities of the economic apparatus through a special journal, *Economicheskaya Zhizn* (*Economic Life,*) published daily by the Council of Labor and Defense.

The chief of the subsidiary, but very important, commissions set up under the direction of the Council of Labor and Defense, and by far the most potent force in the country for coordinating the economy of the Union into a single economic plan, is the "State Economic Planning Commission" (Russian abbreviation: *Gosplan.*) Gosplan grew out of a conference of economic specialists called by Lenin in 1920 for the purpose of drawing up a plan for the reconstruction of industry, based upon electrification. It now prepares one-year and five-year programs, in advance, for every aspect of Russian economic life and submits the programs to the Council of Labor and Defense, where they are discussed, modified if necessary, and approved.

At the head of Gosplan is a presidium of experts, selected because of their practical experience. Subordinate to this body is a series of special sections, dealing with Industry, Agriculture, Fuel, Trade, Electrification, Finance, Budget, and so forth. Each of these specialized sections compiles data and draws up plans for that sphere of the national economy which falls

within its particular scope. Reports from the sections go to the presidium of Gosplan, which examines their findings and modifies or sanctions them before they are submitted to the Council of Labor and Defense.

Gosplan is neither an executive nor an administrative body. It can give no orders to the Commissariats and may issue no decrees. Its sole right is to demand statistical data and reports from any and every economic organization, and such information none are permitted to refuse it. Thus, through its various sections, it gathers daily, weekly and monthly data. It knows the productive capacity and the requirements of every unit; the resources on hand, and what is, or is likely to be, available for export; what will have to be and can be imported; the market conditions at home and abroad; financial conditions; where the profits of industry are most needed; etc. These and other elements it discusses and weighs, and upon this basis it draws up, in advance, a program for every phase of economic activity. These estimates are then turned over to the Council of Labor and Defense which may either approve, disapprove, or revise them. Through the respective commissars the plans are then put into execution.

By means of the Gosplan, the Council of Labor and Defense has a scientific basis by which it can keep the economic policy of the nation subordinated to certain general principles and through which it can shape, within given limits, the direction of economic forces. It can also initiate schemes for national construction, for the elimination of waste and overhead charges, and, above all, Gosplan knows at all times exactly what is happening within the economic structure of the Union.

The commissariat in charge of industry is known under the title of the "Supreme Economic Council."

The People's Commissar at the head of this industrial apparatus, the Chairman of the Supreme Economic Council, is a member of both the Council of People's Commissars and the Council of Labor and Defense. It is the task of this department to regulate, supervise, administer, and manage the industry of the Union—subject, however, like any other economic commissariat, to the direction of the Council of Labor and Defense.

The activity of the Supreme Economic Council extends to every branch of the industry of the Soviet Union. Industries are divided into three categories: (1) those belonging to the Union (the largest enterprises); (2) those belonging to the individual republics of the Union (medium-sized enterprises); and (3) local industries belonging to the municipal governments (small enterprises.) The large enterprises are administered directly by the Supreme Economic Council of the Union. For the medium-sized industries Supreme Economic Councils are set up in the individual republics. The smallest industries are under municipal administration.

The Supreme Economic Council acts through two boards, the first of which, *Tsugprom,* is its direct administrative arm and performs the function of management. The other body, *Geu,* regulates industrial activity, giving to it its direction. At the head of the first of these groups is a board of directors, each member of which is responsible for a particular branch of the industrial machine. Only those factories producing war materials are excluded from this general scheme. A special branch of the Supreme Economic Council, the Chief Administration of War Industries (*Glavvoenprom,*) is in charge of their management and direction.

The Supreme Economic Council also has a special

industrial planning Council (*Promplan*) which has at its command various factors which cannot possibly be known to the individual works. In this manner the programs of production in all fields are brought into conformity with each other, and each unit produces at exactly the correct tempo.

The economic system of the Soviet Union is based on a unified plan of action. Throughout the entire structure, scientific planning for the working of this unit economic plan is undoubtedly the chief factor which has made it possible for the Soviet Union to restore the pre-war economic levels of production.

CHAPTER V

AGRICULTURE

THE Soviet Union is predominantly agricultural. More than 80 percent of her population live upon the land. Before the war Russia ranked first among all of the nations of the world in quantity production and export of wheat and was second only to the United States in the total production of cereals,—being first here, also, if maize is left out of account.[1] She held the record of exporting 28 percent of the total world's export of the five principal grain products; 21 percent of the export of butter; 34 percent of the export of eggs; almost 100 percent of the world's flax export, etc. Over 75 percent of Russia's pre-war export trade was in the form of agricultural products.

Despite the extent of Russian agriculture, little machinery was employed before the Revolution. Methods were primitive. Low yields were followed by crop failures and famines. There was an almost total lack of artificial fertilizers. Animal breeding was undeveloped and a poor quality of stock was the general rule. The ignorance in which the peasants were kept rendered any considerable improvements unlikely or impossible. These factors, plus the continual production of one kind of grain, made for rapid exhaustion of the soil. Pre-Revolutionary Russia never reaped the benefits of her tremendous agricultural possibilities.

Agriculture holds a key position in Soviet Economy.

Successful industrialization hinges on the importation of manufactures and machinery. These, however, must be paid for in increased exports, for unless the Soviet Union is in a position to sell, she cannot buy. Since the bulk of Soviet exports consists of agricultural products the success of agriculture is the foundation for industrialization.

Profit on her agricultural exports is one of the most important items in the Soviet Union's annual balance sheet. The value of the Soviet Union agricultural output in the economic year 1925-26* was over 11.3 billion roubles. This constituted more than 62 percent of the total value for all forms of economic productivity in the Union for the year.[2] Since the farm products are the chief items in the Soviet Union that must exchange on the markets of the world for machinery and other equipment which are essential to the industrial expansion of the nation, the Soviet farmer occupies a key position. Upon his efforts depends the expansion of its industrial economy. To provide Soviet farmers with the technical means of increasing agricultural productivity, and at the same time to supply them with sufficient manufactured goods in exchange for their agricultural products accordingly becomes a problem of paramount importance. Soviet agriculture, as well as Soviet industry, must be speedily raised to a higher level of efficiency.

Even before the Revolution, the war years, 1914-17, had wrought havoc in Russian agricultural life. By 1916 the area under cultivation had decreased by about 7 per cent.[3] The villages had been stripped of large numbers of their able-bodied men. The stocks of cattle were allowed to run down. The country was shut off

* The Soviet economic year is computed from October 1 to September 30.

from replacements of agricultural machinery, practically all of which had been imported, while the supply of artificial fertilizers had all but ceased. Years of blockade had dammed up Russian grain exports. By the time of the 1917 Revolution Russian farmers had reached a point at which they were glad to be able to supply themselves with food and clothing. It did not pay to produce any surplus.

The Revolution of 1917 shattered the last vestiges of Russian serfdom and broke up the large estates of the State, the Church, and the nobles into small peasant holdings. Confiscation was declared immediately upon the seizure of power by the Soviets. On February 14, 1918, an act was passed which defined the holdings of the peasantry. The principle of private property in land was abolished; the holdings in various sections of the country were fixed and standardized; and rent and hired labor were both made illegal. All of the land was in the hands of the peasantry save about 4 percent which remained under the direct control of the Soviets.

The land was literally in the hands of the peasants. The legal title was vested in the State, but the task of land distribution, under the general provisions of the Land Law, was left to the village Soviets. Two principles were to be observed in the distribution of the land by the local Soviets: (1) Each cultivator was to have as much land as he could use; (2) provided that he had a fair share of the land in the hands of the village. In the more densely settled regions, this meant only eight or ten acres; in more sparsely settled districts, more than double that amount.

Americans often think of Russian provinces in terms of American life. There are vast differences, however. The American farmer lives and works on his farm. The

Russian farmer lives in the village, and goes out to work his part of the village land. Sometimes he must travel as much as 20 miles to the "far" land. In such cases he takes a tent and camps out on the land until seeding or harvesting is ended. Then he goes back to the village.

The extremely isolated life of the American farmer is therefore practically unknown in Russia where the social life of the village is a constant factor. Under the Soviet system the village Soviet is the arbiter of the economic as well as the social interests of the villagers.

Soviet efforts at agricultural reconstruction were speedily thwarted by the intervention of foreign countries in 1918 and 1919 and by the Civil War which followed. Counter-revolutionary campaigns laid waste some of the most productive regions in the country. The able-bodied population was compelled to take up arms and neglect production. To cap the climax came the disastrous crop failure of 1921, which plunged the Soviet Republic into one of the worst famines in modern history.

Agricultural production fell off. Its decline was hastened by the government's policy of requisition and compulsory grain levies. Russia was an armed camp fighting for existence. Feeding the army was a first call upon the resources of the nation. The government therefore adopted the policy of forcibly taking from the peasantry supplies of grain for military and civilian use. Peasants responded by still further cutting down their production to the point where they were providing only for their own needs and therefore reducing the supplies liable to requisition.

The ruin caused by Civil War and famine, plus the deliberate curtailment of production by the peasantry,

soon brought the agricultural situation to a crisis. All of its branches deteriorated. The area under cultivation declined—alike for wheat and special crops. The number of farm animals also decreased. The total area under cultivation, which had been 82.5 million dessiatines in 1916, fell by 1921 to 49 million dessiatines.[4] The production of wheat, which, during the years 1909-13 had averaged 758,941,000 bushels was only 171,684,000 bushels in 1921.[5] Cotton production fell from 347,000 tons in 1913, to 11,000 tons in 1922.[6] All other products were more or less similarly affected.

Livestock suffered in a similar manner. Between 1916-22 the number of horses in the Union declined about 40 percent; large cattle dropped in numbers during the same period more than 34 percent; small cattle nearly 51 percent; and hogs about 50 percent. The Soviet Union was face to face with starvation.

Upon the victorious conclusion of the Civil War, Lenin, appraising the situation, recognized the necessity of placating the peasantry. "It is clear," he said in his speech upon the Agricultural Tax, "that in a petty peasant environment nothing but petty bourgeois ideas can prevail. . . . The peasant 'poor' (proletariat and semi-proletarians) in large numbers have become converted into middle-class peasants [and] out of this the small petty bourgeois and private ownership movements have increased. . . . For the improvement of the position of the workers it is necessary to have bread and fuel. . . . There is no other means of increasing productivity, of increasing the stocks of corn and fuel, except by improving the position of the peasantry and increasing its productivity. . . . *This is impossible without seriously altering our food policy;* and the substitution of the food requisition by an agri-

cultural tax, connected with at least Free Local Trade after the tax has been paid. . . ." [7]

Accordingly, after 1921, a definite tax was laid upon the peasantry in place of the previous system of requisitioning his surplus products. On May 10, 1923, the taxes levied upon the peasantry by federal and local authorities were in turn amalgamated into a single tax. Once this is paid the peasant is freed from additional taxes of any kind. Ninety-three percent of the revenue from agriculture goes to the State; 7 percent goes to the local authorities. The peasant is now permitted to freely trade in all that he produces beyond the requirements of this tax. Moreover, he now has definite tenure of his land as long as he keeps it under cultivation, and, within well regulated limits, he may hire labor to aid him in its cultivation. Small peasant household industry, formerly frowned upon by the government, is now encouraged to develop and is directed, whenever possible, into cooperative channels.

Within the Soviet Union at the present time agricultural production is predominantly private, small-scale production. For the year 1925-26, 11.4 percent of the total value of agricultural products was State produced; 0.8 percent was cooperative and 87.8 percent was private. In the estimates for the economic year 1926-27 the absolute totals for all three categories are increased, but their proportions remain practically identical.[8]

Under the present system, the title to all land in the Soviet Union rests in the hands of the State, which holds it as a trust for the entire people. The law on "Land Tenure for Farm Work," adopted by the All-Russian Central Executive Committee on May 22, 1922, made it unmistakably clear that there may be no pri-

vate titles. However, every citizen is entitled to secure land for private cultivation, his tenure being that of a perpetual lease of the surface, for use only. Land not in use may not be held, the lease in such cases reverting to the State. Transactions in holdings are prohibited. A peasant may not sell, buy or mortgage the land which is turned over to him for cultivation.

The Soviet Government is facing squarely the fact that the country has to deal with an overwhelming predominance of small peasantry. There are in the Soviet Union approximately 22 million small peasant establishments, most of which are at a very low stage of economic development, and consequently at a low cultural level. This circumstance presents one of the greatest obstacles to Socialist construction and constitutes the primary economic and social problem which has to be surmounted.

How is the Soviet Union tackling this gigantic problem of socializing the ideas and practices of the rural regions? Primarily by raising the economic level of the peasantry. This it does by straining every nerve to supply them with cheap and plentiful industrial commodities and also with perfected agricultural implements and machinery, which make for the introduction of collective cultivation of the land. Soviet leaders realize that the road to Socialist construction in agriculture lies through methods of cooperation, based on the mechanization of agriculture, on its ultimate industrialization and upon its electrification. All of these factors it strives to foster.

The Soviet government is exercising its influence on rural life in six major directions. These are : (1) Improvement in the methods of tillage; (2) The introduction of scientific methods of cattle breeding;

(3) Encouraging technical production in the villages and increasing commodity traffic among the peasantry; (4) Increased use of mechanical agricultural implements; (5) Introduction of agronomical methods, and, (6) The use of cooperative and collective methods.

Among the outstanding advances which the Soviet government has made in the work of reorganizing agriculture is the introduction of modern farm machinery. There were less than 500 tractors in the entire Russian Empire before the war, and these were exclusively in the hands of the large landowners. By the end of 1925 there were 12,500 tractors in use and plans called for the addition of 22,000 more during the fiscal year 1925-26.[9] The Commissariat for Agriculture announced that in 1923-24 agricultural machinery and implements to the value of 4,872,000 roubles were imported into the Soviet Union. During the following years the imports of machinery jumped to 22,324,000 roubles in 1924-25, and in 1925-26 to 26,065,579 roubles [10]—more than five times the figure for 1923-24.

Demand for machinery is so great that, with its lack of basic capital, the government cannot even begin to meet it. Most of the machines go to the agricultural cooperatives. Groups of peasants organize into cooperatives, purchase a tractor from the government upon credit, and then plow the soil communally. It has been estimated that it costs the peasant 5 roubles per dessiatine to plow by tractor, whereas horse plowing costs 80 roubles for the same area. Moreover, the yield from tractor-plowed land is 15 poods per dessiatine greater than from horse-plowed land.[11] This is easy to understand since much of the horse-plowing is done with one horse. Thus, machine development saves money and labor to the peasant; increases his productivity; and,

at the same time, it teaches him habits of cooperation.

Agricultural cooperation, under governmental stimulation, is making considerable headway. There are now more than 50,000 agricultural cooperatives in the Soviet Union, with a membership of over 7,000,000 peasant households. This is equivalent to about 30 percent of the total number of peasant farms in the country. In certain specialized regions, such as the tobacco and dairy sections, membership in the cooperative runs as high as 60 and even 80 percent of the total peasant population.[12]

The network of agronomic stations for advice to the agricultural population, as well as the number of agricultural experiment and model institutions, greatly exceeds the pre-revolutionary standards. In 1913 there were 1,740 such stations in the 40 former Zemstvo provinces of Russia. On October 1, 1925, there were 2,515 stations in the same area. Estimates for 1926 indicated that there would be 3,147 stations by the end of that year. The State also maintains Soviet farms which serve as models for the peasantry. These Soviet farms also serve as distributing centers for pedigree cattle and selected seed.

The radio is being used extensively in this scientific agricultural work. Loud speakers are being installed in the villages and special agricultural programs are broadcast by agronomists and by practical farmers from the agricultural institutions.

Rural electrification is also proceeding rapidly. In the pre-war period the threshing of grain, the making of butter or even lighting by electricity were hardly known in the villages. The Soviets, however, had electrified, by May 1926, approximately 100,000 rural enterprises. In 1925, alone, electricity was introduced

into 25,000 of these concerns. The sites for central stations are selected in the more populous districts, where handicraft workers are numerous, or where there are flour mills, creameries, etc., thereby encouraging small industries.

The Central Government has hitherto been too burdened financially to participate actively in the work of agricultural electrification and was forced to leave it to local organizations and such societies as the Electrobank. In the budget for 1926, however, 2,775,000 roubles were set aside for rural electrification as well as an additional 2,175,000 roubles which were levied on the profits of the Economic Reconstruction Loan.[13] In the two years 1924-25 and 1925-26, *Electrostroy,* a limited liability company working upon the task of electrifying the countryside, built seventy-eight electric power stations in the agricultural sections of the country. Forty-six of these supplied rural regions exclusively. The remainder served both urban and rural districts.

The government is also able to give encouragement and direction to agricultural enterprises through its powers of taxation. Thus, in 1926-27, six million farms are altogether exempted from taxation while 40 to 50 percent of all peasants will pay less taxes than in 1925-26. The extra tax burden has been shifted to the *Kulak* group of well-to-do farmers. It is the government's policy to improve the situation of the poor and middle peasant groups, and with this in view they are granted special taxation privileges. Moreover, there is tax exemption for those engaged in cultural work in the villages as well as for land held by public organization.[14]

The force of all conditions, i.e., the termination of

the period of Civil War, the practically permanent tenure of the peasant's land for as long a period as he keeps it under cultivation, the Single Agricultural Tax and the revival of trade among peasants and small craftsmen, together with the energetic and active help which the government is giving to the peasantry, have all made for a steady recovery in agricultural conditions since 1923. In many branches the pre-war standards of production have already been attained while in others, particularly in some of the so-called "technical" crops, pre-war standards have been exceeded. The areas under cultivation in 1926 totalled about 95 percent of the pre-war area, while the numbers of cattle reached more than 95 percent of the 1913 figure. The exact extent of the agricultural recovery can be gauged from the following figures:[15]

AGRICULTURAL PRODUCTION
(in million poods)

Branch	1913	1923-24	1924-25	1925-26	1926-27 (*forecast*)
Grain	5,448.7	3,364.2	3,067.6	4,400.0	4,800.0
Potatoes	1,828.0	2,184.7	2,122.0	2,763.0	3,010.0
Grain Bi-Products	8,404.8	4,883.5	4,447.0	6,384.4	6,967.2
Fruit and Vegetables	1,635.0	1,286.6	1,557.1	1,683.8	1,788.1
Hay and Sown Grass	4,839.3	3,532.6	3,565.4	4,240.0	4,744.0
Raw Cotton	45.7	9.4	22.6	34.5	32.0
Flax Fibre	27.7	14.6	18.7	23.2	20.9
Hemp Fibre	24.9	20.8	18.8	28.0	30.0
Butter Seeds	155.9	152.9	140.7	213.8	192.0
Sugar Beets	662.4	172.9	198.4	504.0	504.0

During 1924-25 the value of the entire production of agriculture, in pre-war prices, was 9,000 million roubles, 75 percent of that of 1913. In 1925-26 this amount had grown to 11,300 million roubles, 94.2 percent of that of 1913. The area under cultivation, and the value of the crop, will exceed pre-war during the

current year.[16] The area under cultivation has grown since 1922 as follows:[17]

Year	*Million dessiatines*
1913 (present territory)	98.2
1922	64.5
1923	74.7
1924	81.0
1925	87.2
1926	93.3

The condition of cattle breeding, which occupies second place among agricultural activities, has similarly improved and has either passed or is approaching the 1913 level:[18]

LIVE STOCK
(million head)

	1913	1921	1923	1924-25	1925-26
Horses	30.9	—	19.5	24.0	25.7
Big Horned Cattle	49.1	33	38.0	50.2	51.9
Sheep and Goats	83.5	—	—	79.3	81.9
Pigs	18.9	7	8.0	16.4	15.5

Soviet agricultural production has been steadily improving for the past four years. With the active assistance which the authorities are giving the peasants, there is every reason to expect that these improvements will continue. Each year the demand becomes more pronounced from the rural regions for more tractors and other mechanical implements, for scientific agriculture specialists and for agricultural literature. The government is encouraging all such movements for economic and cultural progress and is meeting the calls made upon it just as fast as budgetary considerations will permit.

CHAPTER VI

INDUSTRY

THE Soviet Union has not yet reached the point of industrial development at which it may be characterized as an "industrial" nation. As late as the economic year 1925-26 the value of industrial production was only 37.9 percent of the total value of the output of industry and agriculture combined.

The country is, therefore, still chiefly agricultural. Industrially it ranks among the "backward" nations. There is a consequent disparity between the price levels of agricultural and of manufactured products.

There are two economic answers to this lack of adjustment between farm and factory. One is to increase the efficiency of farm production, thus decreasing production costs. The other answer is to employ mass production methods, decrease costs and decrease prices of manufactured goods.

An increase in the production of State industry, at reduced costs, is and will long continue to be a prime factor in the creation of proper relations between urban and rural Soviet life, and it also constitutes one of the prime factors in the task of socialist construction. It has therefore become a basic task of the new social order in the Soviet Union to improve industrial methods and to increase output. While tremendous efforts are expended upon agricultural improvement, it is the policy of the Union to make even greater efforts in the direc-

tion of industrial development. It is essential for the Soviet Union that it become industrialized as rapidly as possible and that it produce greater quantities of manufactured products—with the minimum expenditure of labor power and at reduced costs.

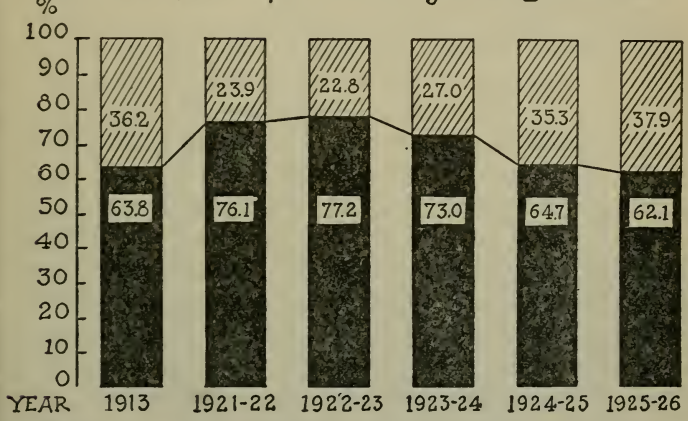
The progress made in these directions has been one of the outstanding achievements of the Soviet Union. Since 1921 the industry of the Union has increased its output more than five-fold. Without exception every branch has advanced with amazing rapidity. At first this development took the form of a "Process of Restoration" and occupied itself chiefly with restoring and reopening existing factories and works. At the present time this corner has been turned and energy is being concentrated upon the creation of new plants, new factories and new industrial units.

The World War dealt an exceptionally severe blow to pre-revolutionary Russian industry. Russia depended upon importation for raw materials and for the replacement of machinery and spare parts. The effects of the German blockade and the mobilization of large numbers of skilled Russian workers proved disastrous. Capital seeking investment was attracted by the tremendous war profits and thus diverted to the war industries. Machinery in other plants was not renewed and the levels of production were reduced. At the time of the November Revolution stocks of fuel and raw materials were exhausted; machinery was out of date and dilapidated; skilled workers were scarce; and production, as well as productive capacity, had shrunken to a fraction of its former proportions.

After the November Revolution the Soviet Government secured possession of a shattered and dilapidated industrial machine. It was this industrial machine

INDICES OF INDUSTRIALIZATION

Relation of
Total Output of Industry to Agriculture



Redrawn from Kantor, Ch.N., "The Path to Industrialization and the New Opposition". *(in Russian)*

Ann Coles.

which the Soviet leaders tried to communalize. On November 14, 1917, "Workers' Control" was decreed and nationalization of all the factories declared. The Government shouldered complete responsibility for the provisioning of the population, for the creation of a harmonious relation between city and country, and for a mutual exchange of the industrial product of the proletariat for the food raised by the peasantry.

Soon the march of events compelled the Soviet Government to abandon the industrial policy which it had hoped to pursue. Between the early months of 1918 and the latter part of 1920 the successive periods of intervention and civil war made it necessary for the Government to concentrate upon military defense. Industry was militarized, centralized, and directed primarily toward the production of war materials. This period was described by the Soviet leaders as the stage of "Military Communism." It was the only economic means of successfully prosecuting the war operations.

Under the Military Communism the larger industrial undertakings were nationalized by the Soviet authorities. By November, 1920, 4,547 industrial undertakings, about 65 percent of the whole number, had been nationalized. The smaller establishments remained in the hands of their former owners.

Under the regime of Military Communism all industry was controlled by the Supreme Economic Council which was charged with the task of adapting industry to war-time needs. Subordinate to the Council were fifty-nine Central Administrations or "Head Centers," each administering a separate branch of industry and in turn uniting the various branches of industry. Thus there were head centers of the chemical industries, paper industry, coal industry, leather industry, and so on.

The direct management of the individual plants was given over to revolutionary committees of the factory workers.

The entire output of each section of industry, after making deductions for the needs of the workers engaged in it and for the payment of wages in kind, was turned over to the State for distribution. The State, in turn, furnished to the establishment its supplies of raw material, fuel and the amount of paper money which it required for the payment of the monetary portion of the workers' wages.

Industrial products were distributed to the people by means of ration cards. Accounts between various branches of industry were also settled without money through an elaborate system of bookkeeping and accounting. All trading was done by direct barter, and the buying and selling of commodities was strictly forbidden by law.

While this form of industrial organization carried the Soviet Republic successfully through a series of civil and foreign wars, it was unsuited to peace conditions. Handicraft industry, with its selling agency, the village market or fair, was the source from which many peasants drew considerable income and upon which they depended for their supplies of various kinds of goods. When private trade was outlawed this village economy was disrupted and no machinery was put in its place. Industrial concentration upon war production; the blockade; war destruction; the lack of machines and parts; the loss of skilled workers; the depreciation of the paper money—all played their part in reducing the supplies of raw materials, fuel and foodstuffs. By 1920, industrial production in the Soviet Republic was in a state of paralysis.

Compared to 1913 the total output of industry was reduced, in 1920, to between 15 and 20 percent of its former volume. The production of coal fell to slightly over 26 percent of its pre-war level; iron ore to 1½ percent; pig iron output dropped to less than 3 percent; cotton spinning went down to 5 percent, while the production of oil was about 42 percent; sugar manufacture less than 6 percent; chemicals about 5 percent; footwear, 11 percent; etc. With the termination of hostilities at the end of 1920 the Soviet Union was faced not only with a transition from war to peace-time conditions but also with the necessity of general industrial reconstruction.

Soviet leaders, urged on by Lenin, announced the "New Economic Policy" in the spring of 1921. On the basis of the three years of experience, a general change was made in the organization and management of industry. In addition to reorganizing the large branches, the small and home handicraft (*Koustar*) industries were restored their freedom of action and were encouraged by the Government. Present-day industrial organization in the Soviet Union dates from the inauguration of the New Economic Policy.

The present management of industry is based upon industrial State trusts and syndicates which have been organized upon commercial principles and have been detached from the State budget. Subsidies from the budget are granted only to certain essential or new industries which are not yet ready to be put upon a commercial footing and are therefore run partially at the expense of the State. Industries showing a surplus contribute a percentage of this surplus to the State budget. The administration of the entire industrial apparatus is vested in the Supreme Economical Council

which regulates and coordinates the whole of the State industry of the Union and lays down a general plan for the entire network of nationalized factories and works.

Since the adoption of the New Economic Policy the basic organization of industrial undertakings has been the so-called "Trust." Trusts, in Russia, are State organizations formed for the efficient management of industry upon a self-supporting basis. Their role in the national economy of the Union is the extremely important one of scientifically organizing production and placing the output upon the market as cheaply as possible.

The Trust is a combination of separate factories or undertakings belonging to the State in the same or related branches of industry. The legal basis of the Trusts is a decree of the Council of People's Commissars, dated April 10, 1923, concerning "State Industrial Undertakings Working on a Commercial Basis." The first article of this decree defines trusts as "State industrial undertakings, authorized by the Government to carry out their operations independently, in accordance with a special charter granted to each, and working on a commercial basis with the aim of acquiring profits." The same paragraph declares that the State treasury is not responsible for liabilities incurred by these trusts.

Paragraph V of this same decree makes the important provision that "No state institution or enterprise has the right to take from the Trust its property or articles produced by the Trust, except by agreement with the Trust." Furthermore, Article 22 of the Civil Code provides that nationalized buildings may not be sold to meet any debts incurred by the trusts and Article 28 provides against the sale of any of a trust's assets, except

with the sanction of the Supreme Economic Council. These provisions insure the trusts against seizure, confiscation or requisitions by the Government; they give them a particularly independent commercial standing, and place them in a strong position as against creditors.

A State trust may finance its operations through the contraction of short-term obligations with banks or other credit institutions. This it does upon the same basis as private borrowers. Before it may undertake the contraction of long-term obligations in the form of bond issues, the sanction of the Supreme Economic Council is necessary. But this consent once given, the State is not in any way responsible for the repayment either of interest or of principal. These must be met out of the profits of the industry itself. The trust is, therefore, a convenient means by which the State can organize, operate and control industrial production and, at the same time, require each establishment to pay its own way without obligations on the part of the State Treasury.

Although the principle of "earning profits" is incorporated in the decree establishing the trusts, various other articles considerably modify the force of this principle. Article 48, for example, requires that they register all of their transactions. Article 50 obligates them, when selling their products, to give preference to the State trading organizations and to the cooperative societies. But the greatest curb upon unbridled profit-making and the pursuit of profit rather than of social objectives is a regulation concerning prices. The trusts do not possess the right of fixing the prices of the articles which they produce. This is done for nearly all commodities by the People's Commissariat for Trade.

Since 1924 there has been a goods famine in the Soviet

Union. Many lines, such as rubber goods, textiles, machinery, etc. could not be supplied by the factories as fast as they were demanded by the consumers. It was impossible to increase imports since they were being restricted to the volume of exports. During this period it would have been extremely easy to sell the industrial output in the immediate vicinity of the factories and to raise prices on many lines. It is very significant, however, that throughout the entire period of critical economic reorganization plans have been worked out and executed for the equitable distribution of goods through the Union and that the prices of commodities have been steadily lowered.

Trusts are organized according to either the "vertical" or "horizontal" principle of industrial organization. Thus the sugar trust, with sugar factories, sugar beet plantations, selection stations, fertilizer factories, etc., has under its control all of the separate processes from raw material to finished product. Other trusts are mere convenient geographic groupings of industrial combinations. Thus there are fifteen localized wood trusts. Certain trusts, such as the "Donugol" coal trust and "Yugostal" metallurgical trusts are nation-wide in their activities and importance, though they do not possess a monopoly. The rubber trust, on the other hand, holds a monopoly of the entire national field.

The last official report on the organization and activities of the trusts dates back more than two years. At that time they included 88 percent of the nationalized industries of the entire Union. There were 480 trusts and these had jurisdiction over 4,000 independent industrial organizations. The Soviet authorities are well satisfied with the trust form of organization. Experience has shown that the trust form gives to each individual

establishment sufficient independence and power to finance and to conduct its own affairs, and, at the same time, it permits of general direction from above, of economy and efficiency.

The trusts are in turn united into "Syndicates" which combine the financial and commercial activities of the separate trustified units of industry. The syndicates are amalgamations upon a national scale of the trusts engaged in each industry. The salt syndicate, for example, controls all of the sales of ten State trusts which together produce about 90 percent of the total amount of salt consumed in the Soviet Union. All syndicates are under the direct authority of the Supreme Economic Council.

Syndicates are organized on the principle of large scale centralization for the purpose of reducing commercial expenses. The syndicates act as intermediaries between the trusts and the market; they open stores for the retail trade. They exercise the following regulative functions:

(1) Survey of the market; observation of trade conditions; gathering of orders; and the distribution of these orders among the various trusts according to the producing capacity of each.
(2) The fixing of conditions for the sale of commodities and the regulation of prices, in collaboration with the Commissariat for Trade.
(3) Centralized purchase and distribution of raw materials.
(4) The fixing of standards and grades of commodities.

(5) The establishment of purchasing and selling agencies.

Trusts which are members of the syndicates thus turn over their products to the selling agencies of the syndicates. There are, at the present time, twenty syndicates. These embrace all of the major industries such as oil, mining, textile, leather, tobacco, etc., but not all of the trusts. Small trusts, or those of a local character, do not, as a general rule, belong to the syndicates.

The general management and regulation of the entire system of State industries is vested in the Supreme Economic Council. This body is the Commissariat for Industry and the administrative center which superintends matters concerning industrial production. The same plan is followed in the six republics composing the Soviet Union, each of which has its own Supreme Economic Council. The State industries are therefore divided into three groups: (1) those of the whole Union (large-scale industries); (2) those under the jurisdiction of the individual Republics (medium-sized industries); (3) the small local industries which belong to the municipalities and are under local administration.

The trusts and syndicates conduct all of the operative functions and are directly responsible for production and for trade. The Supreme Economic Council is concerned chiefly with regulation.

In addition to these forms of nationalized industry, the New Economic Policy makes provision for private industrial enterprises within well-regulated and clearly defined limits. These take the form of "concessions," "leases," "mixed companies," and small-scale private establishments.

The concessions are a means of attracting private

capital to assist in the industrial development of the country. They are contracts between the Soviet Government and the concessionaire. The latter agrees to invest minimum sums of capital which upon the expiration of the concession, usually ranging for a period of between 25 and 50 years, revert to the government. The concession-holder must personally exploit his concession under pain of invalidation; he must pay specified royalties each year to the government, and he may neither sell, lease nor mortgage the property which he is exploiting. The Soviet Government has been extremely stringent about awarding concessions and to date has approved less than 150 applications to operate in the field. Although, therefore, the government is willing on principle to grant these private concessions under certain conditions, their number and extent is as yet insignificant.

The Supreme Economic Council may also lease to cooperative societies, companies and private individuals enterprises under its jurisdiction which, for one reason or another, it does not see fit, or feel competent, to administer directly. Leases, however, are for shorter periods than the concessions and have not, in general, proven attractive to private capital.

"Mixed Companies" are operated jointly by the government and private individuals. As a general rule the government supplies the land, buildings and equipment which it has at its disposal, while the private individuals advance the capital necessary to conduct operations. The State retains title to its property, receiving its dividends in the form of rent. Both groups appoint representatives who cooperate in the management of the enterprise.

The special concession or leasing agreement is neces-

sary only in the case of the larger enterprises. By a decree of the Central Executive Committee, dated July 7, 1921, any citizen of the Union who has attained the age of 18 years may engage at will in home industries or in small enterprises in the industrial field. A small industry is defined as one employing not more than 20 workers and clerks. Private undertakings engaging more than 20 persons, but not more than 100, may also operate under special permission from the local authorities. No one operating a small industry on a private basis may engage in more than one enterprise.

Among the private undertakings the government has been giving special encouragement to the koustar or peasant, small-scale handicraft industries which are to be found all over Russia. In the winter, when there is no work upon the farms, the peasant occupies his time carving wooden spoons, bowls, and the like. The women weave linen upon hand looms, make beautiful forms of pottery, etc.

The government now realizes that the peasant is in a position to make important contributions to the Soviet economy and is helping him to put upon the market the masses of goods which he is able to produce. It also strives to unite the peasants in handicraft cooperatives and in this manner draw them into the system of planned Socialist construction. The handicraft artisan is therefore granted special tax-reduction privileges and State organs render every possible assistance to the handicraft cooperatives in the way of supplying raw materials and facilitating credit operations. The export of handicraft goods, which was begun by the Commissariat for Trade in 1924, is steadily mounting upwards and has increased by over six times since 1924. A special company has been formed to develop exports. It will

embrace all of the important handicraft organizations in the R. S. F. S. R.*

Immediately after the adoption of the New Economic Policy, the output of virtually every branch of Russian industry began to show gains. In 1921 production stood at between 15 and 20 percent of the pre-war capacity. This was the lowest point of ebb. During the early months of 1927 nearly all fields attained their pre-war proportions. In certain industries the 1913 level has long been passed. The electro-technical industry, for example, now triples its output of the pre-war period.

The light industries such as textiles, leather, sugar, etc., which work for the satisfaction of the needs of the small individual consumer, were the first to revive. By 1924-25, however, a decided upward trend also became noticeable in the heavy industries, such as coal, iron, building materials and the like. At the present time industrial expansion is proceeding alike in the heavy as well as the light forms of industrial production.

There has been a very perceptible increase during the last economic year in the amount of raw materials available for the Russian factories. The total crop of cotton rose from 6.366 million poods in 1924-25 to 10.1 million poods in 1925-26. The flax crop increased during the same time from 11.6 million poods to 14.4 million poods. The area under sugar beet cultivation advanced from 297,000 to 439,000 dessiatines and the crop from 27 to 76 million centners.†

Side by side with the increasing supplies of raw materials is the increase in fuel output. Aside from the iron

* The Russian Socialist Federated Soviet Republic, the largest and most important of the six Constituent Republics which together comprise the Soviet Union.

† 1 centner = 110.23 lbs.

and steel industry, which had almost ceased to exist during the period of the counter-revolution and intervention, no great branch of Russian industry suffered as badly as did coal mining. By 1924-25 the production of this commodity was still so far below the needs of industry that the government recognized the need of taking special measures to force up the coal output. In the budget for 1925-26, therefore, special provision was made for financing the coal industry and 47 million roubles were set aside for this purpose. Coal cutting machines and other improvements were introduced during the year upon a large scale with the result that the output of coal rose from 16 million tons in 1924-25 to 24.3 million tons in 1925-26, an increase of more than 50 percent.

The output of oil has also taken a tremendous bound forward. In 1924-25 the total output of this commodity was 6.9 million tons. In 1925-26, due to the installation of more scientific methods, production rose to 8.2 million tons.

In addition to these favorable developments in the production of raw materials and of fuel, the government investments of capital in industry also increased as compared with previous years. The total new investments in industry in 1925-26 amounted to 779.3 million roubles as compared with 339.5 million roubles in 1924-25 and 245.3 million roubles in 1923-24.[1]

Thanks to these factors, most classes of industry approximated their pre-war productive standards by the end of the economic year 1925-26 (which ended on September 30, 1926) and regained their old level during the first and second quarters of 1927. The growth of output in the principal branches for the last five com-

plete economic years, as compared with their pre-war output, has been as follows [2]:

(*Thousand tons*)	1913	1921-22	1922-23	1923-24	1924-25	1925-26
Coal	28,777	9,631	11,681	16,058	16,083.5	24,389
Oil	9,216	4,522.5	5,275	6,070	6,960.6	8,205
Smelting of cast iron	4,207	173.6	300	653	1,292	2,203
Martin Steel	4,247	316.1	590	991	1,868	2,891
Rolled Iron	3,509	250.6	457	688	1,390	2,157
Portland Cement	1,118.7	no data	180.8	354.1	716.4	1,285
(*Million Meters*)						
Cotton Fabrics	——	303	559.6	832.2	1,499	2,018
Woolen Fabrics	——	22.9	21.9	28.9	47.3	64.4
Linen Fabrics	——	38.2	77.1	106.1	134.1	168.4

The bulk of this production has come from the plants which have been socialized. If the total values of all commodities be calculated in terms of pre-war roubles, in order to avoid the influence of the changed money values, the exact proportion of production contributed by each social and economic category has been as shown in the table on the following page.[3]

It can be seen from these figures that while in absolute values private production has expanded between 1923-24 and 1925-26 from 842 to 1,252 million roubles, the proportions of its participation in the total production of the country have dropped, during these three years, from 24.6 percent to 18 percent. State production, moreover, is concentrated in the heavy, large-scale and essential industries, while private production finds its greatest field in the small and handicraft sections.

These figures further reveal that in 1924-25 industrial production exceeded that of the previous year by nearly 48 percent, while production for 1925-26 again advanced over 1924-25 by 37 percent. During the current

(Million Pre-War Roubles)

Year	State			Cooperative		
	Large	*Small and Handicraft*	*Total*	*Large*	*Small and Handicraft*	*Total*
1923-24	2,383	17	2,400	108	64	172
1924-25	3,740	21	3,761	154	79	233
1925-26	5,309	24	5,333	247	91	338
1926-27 (forecast)	6,095	26	6,121	275	98	373

(Million Pre-War Roubles)

Year	Private and Concessions			Total Industry		
	Large	*Small and Handicraft*	*Total*	*Large*	*Small and Handicraft*	*Total*
1923-24	136	706	842	2,627	787	3,414
1924-25	167	879	1,046	4,061	979	5,040
1925-26	241	1,011	1,252	5,797	1,126	6,923
1926-27 (forecast)	270	1,091	1,361	6,640	1,215	7,855

economic year the rate of advance planned for is about 12 percent.*

These figures take on additional significance when they are compared with the tempo of industrial development in pre-war Russia and with some of the major industrial countries of the west. Between the years 1900 and 1913, the average annual increase of production in Russia amounted to 3.87 percent and during the most favorable pre-war years (1908-1913) the increase av-

* Just as this volume goes to press, there appears in the newspapers an Associated Press dispatch from Moscow indicating that the output of Russian industry for 1927-28 is to be greater than that of 1926-27 by 115 million roubles. The same account cites several major branches of industry as passing their pre-war levels of output; *cf.*, *The New York Times*, Aug. 25, 1927, p. 6.

eraged 6.5 percent. In the United States the average annual increase between 1899 and 1913 amounted to 3.5 percent; in England between 1905 and 1913 to only 1.16 percent. In France between 1898 and 1913 the annual increase was 3.35 percent.

Soviet Russia has made production advances of over 40 percent in a single year and her plans provide for regular annual increases of 10 percent by about 1930. Her phenomenal annual increases have been in large part due to the existence of unused reserves of factory equipment which had not previously been turned to account. However, at the present time such reserves have been almost exhausted. In spite of this fact the Soviet Union is able to plan for a 12 percent increase in the rate of production during 1926-27 and for 10 percent annual increases thereafter. Therefore, notwithstanding her general technical backwardness, the Soviet Union is able to advance, industrially, at a pace greater than that which any capitalist country has been able to reach.

Although the level of industry as expressed by the value and the volume of its output has increased fivefold since 1921, the first year of the "rebuilding process," the labor force required to make this advance has not quite doubled. In 1921-22 the number of workers employed in factory industry was 1.243 million. In 1925-26 the force numbered 2.422 million.

In general, therefore, production growth has been due to increased labor productivity rather than to the increase in the number of workers. Fixing the index for 1921-22 at 100, the development of the productivity of labor has been as follows: 1922-23, 126.9; 1923-24, 146.4; 1924-25, 207; 1925-26, 231.6. No month passes but that the daily output per worker steadily advances.

The following table for the first eight months of the economic year 1925-26 is illustrative of the tempo of this increase:

1925-26	*Average daily output per worker (pre-war roubles)*
October	5.79
November	5.91
December	6.05
January	6.06
February	6.31
March	6.37
April	6.46
May	6.52

Such increases of output are ordinarily followed by an increase in real wages for the workers. These increases amounted to over 300 percent in the period between 1921 and 1926.

The Soviet Government realizes that one of the basic factors in still further increasing labor productivity and developing the whole economic life of the country lies in a proper power system. Motive power is a prime factor in every branch of industry, and an elaborate and purposeful program of electrification therefore plays a most important role in the campaign of the Soviet authorities to further industrialize the country.

The original scheme of electrification was worked out under the immediate guidance of Lenin. In 1918 when Russia was cut off from her two main sources of fuel (Baku and the Don Basin) the Central Electrical Council was formed for the purpose of promoting electrical development.

In spite of the economic difficulties under which she

labored during that period, it was decided to proceed with the construction of the Volkhov electrical station; two new district stations, Kashira and Shatura were authorized; and it was decided to resume operations on a power station near Petrograd (the former Utkin Zavod) and to build a new station near Ivanovo-Voznessensk, both of the latter based on peat fuel.

In 1920, also at the initiative of Lenin, another special commission bearing the name of "State Commission for the Electrification of Russia," was formed under the chairmanship of an engineer, G. M. Krzyzanowski. This commission was charged with the task of working out plans for the electrification of the entire country.

Since then the electrification of the country has proceeded very rapidly as compared with the pre-war days. The more industry develops, the greater becomes its power requirements. Before the Revolution the total capacity of Russian electrical power stations was 394,000 kilowatts. By October 1, 1926, their capacity was 1,452,000 kilowatts,[4] in spite of which the country experienced a power shortage. In addition, there were under construction stations with a combined capacity of 35,000 kilowatts. Plans for the next five years provide for the building of new stations and extending those now operating by 1,278,000 kilowatts. According to these plans the total electrical generating capacity of the Soviet Union will amount to over 2,700,000 kilowatts by 1932.

These electrification plans aim to utilize all of the large natural resources of the country, such as peat deposits, oil shale, low grade coal and waterpower. Most of the new stations are planned in the vicinity of this natural energy. Many of the stations are erected in places where inferior fuels or waste material, such as

coal dust, peat and wood waste are available on the spot as fuel for generating purposes but would not otherwise be worth their carriage to any distance.

Under the stimulus of all these factors, Russian industry is not only working without a deficit but is already showing profit. During the economic year 1925-26 these profits amounted to approximately 442 million roubles.

When industry began to work it was not even in a position to finance purchases of raw materials. Equipment was worn out, stocks were diminished and other branches of the national economy were compelled to support the industrial establishments. By 1923-24, however, industrial profits totalled about 105 million roubles; in the year 1924-25 they jumped to 305 million roubles; and in 1925-26 they again advanced to an amount variously estimated in the preliminary data at between 442 and 475 million roubles.

Although certain of the large scale, heavy industries still require grants from the budget, industry as a whole is no longer a burden to the State budget. By 1923-24, budgetary expenditures and revenues had almost balanced. During 1924-25 and 1925-26 industries as a whole turned back to the treasury more than they received from it. In the first of these two years this favorable balance amounted to 33.4 million roubles and in the second it was 27.1 million roubles. At the same time most of the subsidies granted from the budget are given in the form of repayable loans rather than as non-returnable grants. The government, therefore, takes capital from the light industries which are able to return large profits and lends portions of it to the heavier branches which require large investments of fresh capital and whose rate of recovery is therefore not quite so

rapid. The most profitable branches thus far have been the rubber industry, the sugar industry, and the production of petroleum. The least profitable branches, or those which have shown a loss, are the various branches of the metal industry and coal mining.

According to law and established custom, the profits of the State industries are distributed roughly as follows:

Forty percent of the total profits are allocated to the State or the local budget, depending upon whether the particular industry is run by the Union, by one of the Republics or by a municipality.

Ten percent is paid to the treasury as income tax (8 percent of the profit is the amount paid to the State budget and a supplementary 2 percent goes to the local budget).

Twenty percent of the profit goes into a reserve fund. This fund is established for the purpose of enlarging the enterprise, writing off subsequent losses, etc. It requires the permission of the Supreme Economic Council before these reserves may be drawn upon. The industry is required to invest 60 percent of the amount of this capital fund in interest-bearing State bonds. Upon these bonds the enterprise receives from the State 8 percent interest per year.

A minimum of 10 percent of the profits must be deposited by the enterprise in a fund for the improvement of the standard of living of the workers of the particular factory. Three-fourths of this amount is devoted to the erection of dwellings for the workers; the remainder is expended upon vari-

ous other activities connected with raising the cultural level of the workers.

The remaining portion of the profit is as a general rule left for disposal as the enterprise may see fit. It is usually devoted to constructive purposes, increasing capital, and so on.

Almost six years have now passed since industry in Russia has been organized in its present form. From that time until the present, hardly a month has passed without showing substantial increases in industrial production.

By 1927 the process of restoring pre-war industry has been practically completed. This stage, which may be characterized as one of "restoration," is being left behind. Work is now being commenced upon a new industrial structure which the Russians describe as the step forward which puts them well on the road of constructive Socialism. Improvement in the technique of production, the equipment of industry with modern machinery and the erection of new factories and works are the tools through which the Russians seek to achieve the ends which they have in view.

CHAPTER VII

TRANSPORT AND COMMUNICATION

In a vast and almost undeveloped country such as the Soviet Union, agricultural and industrial revival, as well as the development of every branch of the national economy, are dependent to an extraordinary degree upon the country's facilities for transport and communications. Without sufficient transport and communications, in fact, most economic problems are insoluble.

The Soviet Union spans two continents. Across these an extensive and efficient network of rail and water transport are the *sine qua non* of the fulfillment of the objectives of the Soviet economic administration. If the Union is to be successfully developed and industrialized, raw materials must be transported thousands of miles from the out-lying regions to the manufacturing centers. Cotton must be transported to the industrial regions from Turkestan, petroleum from Baku, coal from the Donetz Basin, etc. Foreign trade, of course, involves the maintenance of an efficient merchant marine, or the alternative of paying huge tribute to foreign carriers.

Under the rule of the Czar, every branch of Russian transport was underdeveloped and inefficient. The most important of all, railways, was given attention which might almost be called negligible in comparison with the needs of the country. The total length of line in

1913 was 63,700 versts,* about one-twelfth the average trackage per square mile in the United States. There were only 500,000 freight cars in the whole empire, of which only 92 percent were in use, and only 30,324 passenger cars. Moreover, many of the lines were merely tracks, not finished roads, while the rolling stock was not even comparable in quality or capacity with that of other western countries. Canada, for example, had under 40 percent as many freight cars as Russia, but their total freight carrying capacity was only slightly less than the capacity of all of the cars in the Russian empire.

About the same state of affairs held in the Russian merchant marine. In 1912 she had only 500 thousand tons, whereas even Spain had 750 thousand tons, Italy 674 thousand tons and Sweden 652 thousand tons—not to mention great powers such as England, Germany, the United States and Japan. In 1913 only 7.5 percent of the sea-freight carried to and from Russia was carried under the Russian flag.[1]

Although Russia holds first place in the world in the length of her navigable inland waters, almost nothing had been done for their improvement. The average annual expenditure between 1909-17 upon the whole system of inland waterways was only about $4,000,000. Upon the rivers of Siberia only about $25,000 annually was spent during the same years. At the same time that Russia was spending $150 per mile on the river Don, $1,200 per mile on the Dnieper and $1,400 on the Volga, Germany was spending $20,400 per mile on the Rhine and France about $24,000 on the Rhone. Less than 4 percent of the navigable inland waters were

* 1 Verst = ⅔ mile. Over 9,000 versts of this line was in territory not now a part of the Soviet Union.

improved. There were only 550 miles of canals, and the appropriations of the government were not sufficient to keep even these in a state of good repair.

As a result of these conditions, about 100 million roubles annually was paid to the foreign carriers who handled Russia's seaborne trade. Moreover, coal had to be imported into a country which was itself very rich in coal, because of defective transport facilities. For the same reason gold mining was both difficult and expensive; food was expensive in Moscow and cheap in Siberia; particularly in Turkestan and Siberia, vast stretches of arable land lay idle and many other natural resources could not be utilized because transport facilities were deficient. On every side economic development was handicapped by the state of the railways and water transport.

The war subjected this feeble transport system to a strain under which it was bound eventually to collapse. Although 10,000 versts of new construction was effected during the war, both the service and the equipment deteriorated steadily and breakdowns were not infrequent. Between the war, revolution, counter-revolution and the intervention, the system was reduced to ruin. By 1917 a quarter of the locomotives had broken down. Operation of railways was possible over only 52,500 versts of line, which fell again in 1918 to 20,000 versts and to 9,000 versts in 1919. During the Civil War 54,000 versts of line fell within the sphere of the war, of which only about 16,000 versts escaped complete destruction. Three thousand six hundred and seventy-two bridges were destroyed, as well as 1,500 depots and 980 water supply stations. About 80,000 versts of telegraph lines were damaged and almost 15,000 telephone and telegraph instruments were destroyed or carried off

by the "whites." About two-thirds of the engines and a quarter of the trucks were damaged or destroyed.[2]

Conditions of sea transport were as bad. The "whites" sank, burned or carried off whatever they could lay hands upon. Nine hundred river boats and 12,500 sailing vessels, barges, etc., were thus destroyed. More than half of the sea-going tonnage was also lost. By the end of 1921 the mercantile marine of the Black Sea and Sea of Azov consisted of only 60 badly battered ships having a total tonnage of 22,599 tons. In 1913 the freight carried by Russian ships was 2,096 million poods. In 1921 it was 24 million poods.[3]

These figures furnish an idea of the task which faced the Soviet Government when the termination of hostilities gave it a breathing spell and the opportunity to begin constructive economic activity. As early as 1920, a year before the intervention ended, the task of transport reconstruction was commenced. The slogan "Everything for transport," was raised and both the government and the entire population concentrated upon this aspect of the national economy. By straining all of its resources, the Soviet Government, to date, has not only repaired a considerable proportion of that which was damaged and replaced much that was destroyed, but, particularly in rail transport, has surpassed the pre-war levels.

As now organized, all forms of transport fall under the direct jurisdiction of the Commissariat for Ways and Communications, with the exception of the *Dombroflot* (Volunteer Air Company) which is subject to the joint supervision of the Commissariats for Ways and Communications and for Foreign Affairs, and a section of the sea-going shipping, the administration of which is divided between the Commissariat for Ways and Com-

munications and the Commissariat for Home and Foreign Trade. The Commissariat for Ways and Communications has four administrative and executive departments: (1) Railway Transport; (2) Internal Water Transport; (3) Marine Transport; and (4) Local Transport (highways, motor transport, etc.).

Since the year of the Revolution, new railway construction in Russia has been completed as follows[4]:

Year	*Miles*	*Year*	*Miles*
1918	320	1923	143
1919	855	1924	546
1920	753	1925	186
1921	322	1926	856
1922	235		

During the last three years 3,259 miles of railways have been under construction. Of this 1,588 have already been placed in operation. The mileage now in service exceeds the pre-war figure. Altogether, new construction, which is planned for the future at a rate of over 1,200 miles per year, includes eight railways which are about ready to be placed in operation and twenty-two that are in various stages of construction.

During 1925-26 approximately 92,800 million ton-kilometers* of goods were transported across Soviet Railways. Transport of the principal agricultural and food products and fuel increased by 41 percent over 1923-24. During 1926-27, it is estimated that the goods transported will aggregate 102,000 million ton-kilometers, an increase of about 10 percent over 1925-26 and 98.9 percent of the amount carried in 1913.

The People's Commissariat for Transport has also

* A ton-kilometer signifies one ton of goods transported a kilometer.

issued the following figures, illustrative of the growth of freight turnover since the adoption of the New Economic Policy*:

Year	*Average Daily Freight-Car Loadings*	*% Relation to 1921-22*
1921-22	9,590	100
1922-23	11,722	122
1923-24	13,517	141
1924-25	17,398	181
1925-26	24,007	250

The increase in the turnover in freight has, of course, been possible only because of a corresponding improvement in the rolling stock on the roads. From 1925 to 1926 this improvement was as follows[5]:

	Oct 1, 1925	*Oct. 1, 1926*
Locomotives	10,450	11,200
Freight Cars	355,500	390,000
Passenger Cars	14,800	16,400

Repairs and renewals of rolling stock, during 1926-27 are to be as follows: 304 new engines are to be made in the works of the Soviet Union, while 2,266 engines will receive major repairs and 9,563 light repairs. The shops of the Union will build 799 new railway carriages, those of the Supreme Economic Council will build 8,317 railway trucks and 4,200 additional trucks will be constructed in the shops of the railroads.

In 1922-23 the government was compelled to grant

* For the first four months of the economic year 1926-27, Soviet Railways handled 43,487,000 metric tons of freight as compared with 38,680,000 metric tons during the corresponding months of 1925-26. During the same months freight-car loadings averaged 26,862, comparing with 23,670 during the corresponding months of 1925-26.

to the Commissariat for Ways and Communications a subsidy equal to about half of the total revenue from transport. In 1924-25 the railways were able to earn profits exceeding 11 million roubles. In 1925-26 the total railway receipts were 1,279 million roubles; operating costs and expenditures were 1,232 million roubles. It is estimated that during 1926-27 the roads will operate at a profit of 252 million roubles, all of which is being allocated toward partial payment of the costs of new construction.

The railways of the Soviet Union have the following working connections with foreign lines: (1) Soviet-German passenger and freight service connecting Moscow with Koenigsberg via Lithuania, Latvia and Esthonia; and Moscow-Berlin, via Riga; (2) Soviet-Lithuanian passenger and freight service, connecting Moscow and Klaipeda, through Latvia and Esthonia; (3) service for passengers and goods between Moscow and Lithuania, via Riga; (4) passenger and freight service from Moscow to Tallinn (Esthonia) via Leningrad; (5) Soviet-Finland passenger and freight service between Leningrad and Helsingfors; (6) Soviet-European service connecting Moscow with Berlin and Paris, via Warsaw; other services connect Poland with all of the chief cities of the Soviet Union; (7) service between Persia and the Soviet Union is carried on through the Transcaucasian railways of the Soviet Union and the Tabriz-Persian Railways; and (8) a temporary agreement connects the Soviet Union and Turkey via the Transcaucasian railways of the Soviet Union and the Eastern Turkish Railways. A direct passenger and luggage express service also connects Europe, via Riga, with Siberia and the Far East. There are other minor services. These, however, are the ones of importance.

The economic authorities of the Soviet Union are fully awake to the dependence of all branches of the national economy upon transport facilities. The industries of the Moscow area are faced with a fuel problem, although the fuel capacity of the Donetz Basin is sufficient to meet the full needs of Soviet industry, if it can be properly transported. The development of agriculture in Siberia and of coal mining in the Kuznetzk Basin are dependent upon the construction of Siberian railways. The further development of cotton cultivation in Turkestan must also wait upon additional railway construction connecting that region with the remainder of the country. The Emba oil region is capable of considerable development if Central Asia and Central Russia are connected by a new railway. Likewise the greater utilization of the timber resources of Siberia and the exploitation of many of the other resources of the Soviet Union will be further advanced only when railways make their exploitation feasible.

To partially fill these needs, twenty-two new railways are now in process of construction, of which it is expected that about 1,400 miles of new line will be completed and placed in operation during the current year.

Among the new railways to be finished this year are the Nizhni-Novgorod-Kotelnich line, which will serve as a short route for the transportation of goods between Moscow and the West Urals and furnish quick transportation to large timber and agricultural regions whose goods must now be transported by road; the Petrovsk-Blagodarny railway will serve a rich agricultural region, whose surplus it is now difficult to export because of transportation difficulties; the small Uzlov-Venyev line will provide a short route for the transport of coal to Moscow and to the electric power station at Kashira; the

Petropavolsk-Suche line is designed to serve wheat and cattle areas; and the short Teberdinsk line of only 32 miles provides transportation facilities for the rich corn producing lands of that region.

Three additional lines are to be built during the current year. One, the Termez-Dushambe, will serve as a stimulant for the productive forces of the valley of the Surkhan River and the fertile valley of Gisarsk and it will facilitate irrigation of a large area suitable for cotton growing. It will also provide transportation for the industrial products of the Todshik Republic. Another new line will be the Kuznetzk-Telbes. It will serve a region rich in mineral ores. The third line will be the Troitsk-Orsk, a branch line of the Troitsk-Orsk Railway.

It was also recently decided to construct the Turkestan-Siberian railway trunk line. This line, which will be 980 miles long, is of immense importance as it will stimulate the productive forces and the greater utilization of the natural resources of both western Siberia and central Asia and will facilitate the provision of a cheap food supply for central Asia, a problem upon the solution of which depends the further expansion of cotton growing in that region. The road will pass near very rich mining regions in the Kazak and Kirghiz Republics, and through other regions which will make it valuable for the transportation of draft animals and sheep. The cost of the line will be about 140 million roubles.

Investigations to determine the total railway requirements of the Soviet Union are now under way. The building program for the subsequent few years will be shaped accordingly.

Within the cities the trolley services were restored to their pre-war mileage by the end of 1924. In 1925

many cities increased their mileage over the pre-war level and several cities commenced new electric car service. In 1913 the Moscow Street Railways carried 257 million passengers. In 1923-24 they carried 250 million and, during 1924-25, 394 million. The number of cars, however, did not keep pace with the increased traffic. In 1924-25, when the traffic was 1½ times as great as in 1913, the number of cars in operation was 13 percent less. In 1924-25, the income of the Moscow lines was 35 million roubles and the net profit 9.397 million roubles.

In Leningrad there are 23 car lines, with a mileage of 250 miles, slightly greater than pre-war. Their gross income in 1924-25 was 19 million roubles; their net profit 8 million roubles. In all, 80 new trolley lines were opened in the principal cities of the Union during 1926.

Urban, interurban and suburban auto-bus and truck traffic is also expanding rapidly. There are, in all, 133 lines covering a total distance of about 4,410 miles. The Moscow buses constitute about 75 percent of the total, carrying about 2 million passengers a month within the Moscow district. The next center of bus-traffic importance is Transcaucasia, which has twenty-five lines in operation.

In order to stimulate auto bus traffic the Soviet economic organizations formed a special joint-stock company, *Autopromtorg*, in 1923 with an original capital stock of five million roubles. After three years the company now owns 570 motor buses and trucks. The quantity of freight which the company handles is now 4 million tons annually, seven times greater than in the year of its organization. Its shipping and other activities cover the entire territory of the Soviet Union and it has 50 offices, branches, agencies and stations. Last year

Autopromtorg made a net profit exceeding 500,000 roubles.

Water transport has also been reviving rapidly in recent years, though not at the same rate as land transport. In 1925-26 the transport of goods on the Soviet river system aggregated slightly under 60 percent of the pre-war average. Sea transport was over 48 percent of the 1913 total for the entire Russian empire. Water transport was, therefore, well above half of the pre-war average for the present boundaries and ports of the Soviet Union.

Prior to the war, Russian shipping was divided between the ships of private owners and those of the "Volunteer Fleet." The latter were State owned. In 1913 the proportion of the entire foreign freight carried by sea was 62 percent by value and 71.5 percent by weight of the total of foreign freight carried by land and sea.

After the termination of the Revolution, the river ships and other property of the large shipowners were nationalized by a decree of January 5, 1918. The property of the small traders was not nationalized, being left in private hands. Later, 336 small steamships with 15,812 indicated horsepower as well as 503 sail ships and barges were returned to their former owners, and 105 small steamships of 10,818 indicated horsepower and 1,115 sail ships and barges were given to various industrial unions.

Sea shipping was also nationalized and the "State Mercantile Fleet" was created. In addition to the State Mercantile Marine, a number of small private owners and the cooperative societies also control some of the trading vessels. At the beginning of 1926, of the total sea craft, the private owners owned none of the steam vessels, 244 sailing and motor-sailing vessels (with a combined

freight capacity of 48,529 tons) and 432 auxiliary vessels.

A number of vessels flying a foreign flag in connection with Soviet foreign trade are, in reality, either wholly or partially Soviet owned. These are owned by Russian trading agencies, incorporated under the laws of the country to which they are accredited and whose ships therefore fly the flag of that country. They include six steam vessels of 3,000-3,500 tons freight capacity each, belonging to *Arcos*,* the purchasing and selling agency of the Soviet Union in Great Britain; the Anglo-Volunteer fleet, which has four additional vessels flying the English flag; and three ships of about 2,500 tons each which fly the Norwegian flag.

The administration of sea-going shipping is divided between the Commissariat for Ways and Communications and the Commissariat for Home and Foreign Trade. The latter controls the port of Leningrad and the present Volunteer Fleet.

In pre-war days the Russian river fleet was of tremendous importance in the conveyance of internal cargo. In 1913 it carried 38 percent of all of the internal freight carried within the Russian empire.

Upon the conclusion of the war, the number of steamers employed on the Russian rivers were reduced to 81.1 percent of their pre-war numbers and to 78.1 percent of their previous total horsepower. Other river vessels, during the same period, were reduced to 53.1 percent of their former numbers and 58 percent of their previous tonnage.

Both steam-driven and other vessels of the river fleet continued to decline in number during the period of

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* Written prior to the raid upon Arcos made by the British authorities. It is not yet clear what disposition is being made of these vessels.

Civil War and intervention. At the conclusion of this period the number of steamers were reduced to 63.1 percent of their pre-war numbers and to 66.2 percent of their horsepower. Ships other than steam driven fell to 30.1 percent of the number and 36.5 percent of their pre-war horsepower. In addition, 794 steam-driven ships and 1,802 other vessels were damaged to a state which placed them beyond repair.

Since 1921 the Soviet Government has been steadily at work repairing this damage. At the present time the river fleet has been built up to include 1,109 steamships, having a capacity of 306,275 indicated horsepower and 2,604 sailships with a capacity of 2.72 million tons.

To supplement the fleet of sail ships, it was decided in 1926 to build 292 iron and wooden ships. At the present time 216 of these, with a capacity of 139,168 tons, are in process of construction. The whole number will be completed during 1927. A five years' shipbuilding program contemplated by the Commissariat for Ways and Communications involves a total expenditure of 207.5 million roubles

Since 1918 the freight transport work done by the river fleet has increased steadily. In 1918, 7.2 million tons of cargo were carried; in 1919, 7.61; 1920, 12.0; 1921, 13.9; 1922, 13.0; 1923, 19.0; 1924, 18.7; 1925, 22.95; 1926, 26.4. The pre-war average was 44.26 million tons.

Sea transport is also making rapid strides. The total cargo carried by sea had dropped from 33.8 million tons in 1913 (for the entire Russian Empire, including regions not now part of the Soviet Union) to 387,072 tons in 1921. By 1924-25 it had risen to 12.9 million tons and in 1925-26 it rose again to 16.5 million tons. The distribution of maritime transport among the dif-

ferent ports of the Soviet Union since 1924 has been as follows[6]:

(Thousand Tons)

	Coastal Trade		*Foreign and Long Distance Coastal Trade*			
			Import		*Export*	
	1924-25	1925-26	1924-25	1925-26	1924-25	1925-26
The White Sea and North Arctic Ocean	139	188	211	219	1,074	984
The Baltic Sea	40	29	739	527	734	756
The Black Sea and Sea of Azov	1,249	1,926	519	212	3,325	4,899
The Pacific Ocean	109	145	96	143	980	1,388
The Caspian Sea	3,533	5,010	105	71	63	92
Total	5,070	7,298	1,670	1,172	6,176	8,119

Reconstructing the mercantile marine has been among the most arduous problems faced by the Soviet economic administration. After the "whites" had burnt, sunk or carried off all that they could, only half of her sea-going tonnage was left to the Soviet Union, and this was extremely worn and battered. But repair work was immediately begun, sunken ships were salvaged, battered units were put into sea-going shape once again and a new building program embarked upon. The program for 1926-27 provides for the building of 19 additional seafaring ships having a capacity of 64,350 tons. An order is also to be placed in Germany for ten additional ships.

Among the foremost of the projects which the Soviet Government has begun to carry out for the improvement of water transport is a canal connecting the Volga and the Don. The canal is to extend from Sarepta on the Don to Shumovsky Khutor near Stalingrad (formerly Tsaritsyn). Its total length will be about 62 miles. In addition to solving local transportation prob-

lems it will serve as a means of transport between the Donetz Basin and the industrial centers located in Central Russia, the northwest and the Urals. Its cost of construction is estimated at 110 million roubles.

In connection with the construction of the Volga-Don Canal, it is intended to construct a deep water port at Rostov, the main seaport of the grain producing regions of the south. The plans call for the dredging of a marine channel 22 feet deep for a distance of over 80 miles along the south shore of Taganrog Gulf, from the mouth of the river Don to the Mariupol Meridian. The same project also involves the construction of deep water wharves, installation of locks on the Don as well as the construction of modern grain elevators to handle the grain export trade at the port. Even in its early years the freight turnover of this canal is estimated at 5 million tons annually.

Additional plans contemplate the reconstruction of the Mariisk system which, in conjunction with the Volga-Don Canal, will form one cheap route from Siberia with a branch from Leningrad and another to Rostov. In the general plans for the improvement of waterways is also included the problem of a Siberian water route to provide a waterway for the export of goods from Siberia to the ocean.

There are three aviation companies in the Soviet Union whose lines extend over more than 8,000 miles connecting with all of the strategic commercial points in the European and central-Asiatic sections of the Union. Various lines operate between Moscow, Nizhni-Novgorod and Kazan; between Moscow and Leningrad; between Kharkov and Odessa and to towns in the Crimea. The Central Asiatic service takes in Khiva, Tashaus, Termez and Dushambe. In March, 1927, a

new Central Asiatic route was opened between Tashkent—Samarkand—Termez—Dushambe. From the latter point a fortnightly flight will connect with Kuliap and Sarai. Another service recently instituted connects Verkhniudinsk and Urga.

A Russo-German Air Service, *Deruluft,* also operates between Moscow and Berlin—a distance of 1,137 miles which is covered in between 16 and 17 hours, including stops. The service includes passenger, freight and post. The passenger fare from Berlin to Moscow costs 300 marks, which entitles the passenger to 10 kilograms of baggage. Regular service will also be maintained between Berlin and Vladivostok, a distance of more than 5,000 miles, additional stops eastward from Moscow being made at Omsk and Irkutsk.

The administration and management of all forms of public communication fall to the jurisdiction of the Commissariat for Posts and Telegraphs. Its functions include the telephone, telegraph, radio and postal services. Its tasks involve the two-fold duty of administering, managing and extending existing means of communication and, on the other hand, of organizing new ones. Its work is one of the most difficult and responsible tasks, not only of the economic, but also of the cultural development of the Soviet Union.

The telephone system which was nationalized in July, 1919, is being steadily extended and lines now exist in and between almost all of the important towns and cities. By 1926 there were 23,000 miles of telephone line, as compared with 9,146 miles of line in the Russian Empire in 1913. The number of telephone instruments in use on April 1, 1926 was 171,000. While this number is still small, it is being increased continually, and it is planned that within three years

service will be furnished to all of the districts in the country.

By the end of 1924 there were 374,529 miles of telegraph line, as compared with 292,349 miles in the present territory of the Russian Empire in 1913. At the same time there were 8,260 telegraph instruments in operation; 1,560 repaired reserve instruments; 367 instructional instruments; and 2,592 instruments needing repairs.

Both the telephone and the telegraph services are economically self-supporting. In 1926-27 they are expected to yield together a surplus of revenue over expenditure of 3 million roubles.

The radio is also coming into extensive use as a means of communication. Not counting many small stations, there are now 26 powerful stations operating within the Union. The largest of these is the Leningrad station, the capacity of which is being increased from 10 kilowatts to 50 kilowatts. Its present capacity has reached 18 kilowatts. When completed it will be the largest station in Europe and will be able to broadcast not only to all parts of the continent but also to America. Other large stations also broadcast from Moscow, Tver, Kursk and other cities. On the Kursk railroad an experimental movable station has been erected which is able to broadcast for a distance of about 190 miles. In the remote Archangel region two land broadcasting stations are being erected and three stations on ships. Yet another station is being built in the extreme northeastern part of Siberia, in Ust Kamchatka.

At the beginning of 1926 it was reported that there were 225,000 radio receiving sets in use and that the number was increasing at the rate of 25,000 a month.[7] Many thousands of sets are being installed for educa-

tional purposes in village reading rooms and in workers' clubs.

The postal service in a country such as the Soviet Union presents particular difficulties due to its vast territory and its relatively scant network of railways. In addition, therefore, to modern and up to date methods of postal communication, such as railroads, aeroplane and automobile, there are some regions of the Union where mail must of necessity be carried by horses and camels. In the extreme north, the postal authorities utilize dogs and, in some cases, even reindeer. The air mail service is growing with particular rapidity. Whereas air mail was non-existent prior to the Revolution, there were 2,800 miles of air-mail service in 1924-25 and 3,900 miles by the end of 1925-26.

The volume of mail handled by the Soviet postal system was 82 percent of the pre-war total in 1924-25. In 1925-26 it exceeded the pre-war mark.

There has been no difficulty in rebuilding the postal system of the towns. The rural regions, however, present serious problems.

There are 360,000 inhabited places in the Soviet Union. Prior to the Revolution the rural sections of the country remained practically outside of the postal system. In 1913, the post served only 3 percent of the rural population. By 1923-24 postal service was in operation in 9,030 towns and villages. In 1926 it was serving 202,365 towns and villages, embracing 80 percent of the entire population of the Union.

The number of letters sent by the rural regions also grows rapidly. In 1924 these sections supplied 18 percent of the total number of letters mailed. By the second quarter of 1925-26 this proportion had risen to 30 percent. In 1913 there were only 2,800 village letter

boxes. During 1926-27 the number is being brought up to 64,000.

For better contact with the remote rural regions, the Soviet postal service is inaugurating a new type of travelling post office called "post office on wheels." The number of postmen, including those mounted and those on foot, has reached 12,500.

The village postmen are assigned routes averaging 12 to 13 miles. They make the rounds of the villages in this district about twice a week. In addition to purely postal operations, the village postman accepts subscriptions to the newspapers and magazines, distributes agricultural goods needed for the village and he is used in many other ways for the cultural advancement of agricultural life.

As a result of its enlarged activities, the post office has considerably increased its income in recent years. Instead of receiving a subsidy as it did in the early years of the Revolution, it now earns profits, which are turned over to the State treasury. During the fiscal year 1926-27, 10 million roubles will be turned over to the treasury. The income of the post office is expected to reach 140 million roubles in 1926-27, as against 80 million roubles in 1925-26.

None of the economic services of the Soviet Union was harder hit by war and revolution than transport and communication. Nowhere has the Soviet economic system been more severely tested out, and in no field has it proved more effective.

CHAPTER VIII

INTERNAL AND FOREIGN TRADE

THE economic success of the Soviet regime can be measured in large part by the way in which necessary commodities are distributed to those who require them; by the disposal abroad of the surplus not required by the home population; and by the purchase in foreign markets of the machinery and other commodities required for the industrialization of the Soviet Union.

One of the fundamental problems created by the Russian Revolution was the establishment of closer relations between the working class in the industrial centers and the farmers and villagers. Such a satisfactory relation can be established only by the creation of proper exchange relations between the products of urban industry and those of agriculture. A carefully organized, efficient and well regulated trading machinery is therefore a prime factor in the successful operation of the Soviet State.

From the adoption of the New Economic Policy until October, 1925, the problems of trade with foreign nations and of goods distribution in the domestic market were separately organized and handled by two distinct departments, the Commissariat for Home Trade and the Commissariat for Foreign Trade. The close relation between the two branches, however, soon demonstrated the advisability of a centralized and unified administration of the two. Accordingly, in 1925, they

were merged into a single department, the Commissariat for Home and Foreign Trade.

This merger has been effected with the view of attaining greater efficiency and unity between domestic and foreign commerce. It has the further end in view of linking foreign trade closer to other branches of the national economy, of coordinating the work of various trading organizations which had hitherto conflicted in many cases, and of better facilitating the regulation of prices and the relations between home consumption and export. In order to unify the economic system even more closely, there is a movement at the present time to unite the work of the Supreme Economic Council with the work of the Commissariat for Home and Foreign Trade. To date, however, this suggestion has not been carried into practice.

INTERNAL TRADE

Prior to the outbreak of the World War, Russian internal trade was not subject to government regulation. Trade relations between the large producing agencies, the peasantry and the city population were allowed to work themselves out independently of governmental control. The hand of the State was felt only in the collection of taxes levied on trade by the fiscal authorities.

Russian internal trade amounted to 18,527 million roubles in 1913. Making deductions for over 300,000 square miles of territory and for the 56 million inhabitants that passed out of the control of Soviet Russia upon the conclusion of peace, the 1913 internal trade volume for the present area of the Soviet Union works out as 15,267 million roubles.

Like all other branches of the national economy, Russian internal trade felt the devastating effects of the world war. The blockade, by shutting off imports, dislocated factory production. War demands further disrupted normal industry. Moreover, the breakdown of transport prevented the movement of supplies and the proper distribution of whatever diminished quantity of commodities still remained available for the civil population.

As a consequence, the volume of all kinds of commodities offered for sale in the open market shrunk steadily. Food and manufactured products grew scarce. Prices soared. Between the years 1909-13 the average amount of grain placed upon the market each year has been estimated as 1,100,331,000 poods. For 1914 the quantity fell to 802,789,000 poods, and in 1915 to 542,099,000 poods,[1] or less than half the average of the five pre-war years. Obviously a trade crisis was approaching.

In 1916 the government attempted to stem the rising tide of popular discontent by purchasing the surplus grain of the peasantry and by establishing machinery for its distribution. It also planned to extend this regulation to other branches of trade. But the effort was begun too late. Before the new machinery could be put into motion the March Revolution (1917) had broken and the old regime was driven from power.

During the Kerensky regime the government attempted to restrict the freedom of internal trade and to govern the distribution of goods. In an effort to supply the food needs of the population, particularly of the soldiers and the city inhabitants, the Provisional Government established a grain and flour monopoly and rations were given out only to those who held cards.

Later an unsuccessful attempt was made to do the same thing for manufactured products. On the whole, however, the legislative attempts at trade regulation were productive of few satisfactory results and there was little, if any, change for the better.

During the period between the seizure of power by the Soviets (November, 1917) and the introduction of the New Economic Policy (1921), internal trade, in the sense of the free purchase and sale of commodities on the open market, did not exist. The situation created by the Civil War, blockade and intervention led to the establishment of the system of War Communism under which foodstuffs and manufactured goods were rationed. Internal trade, therefore, in conformity with other branches of the national economy, was replaced by a system of State collection and distribution.

During this period of over three and a half years the surplus supplies of the peasantry were requisitioned by the Soviet officials. The regulation of production was entrusted to the Supreme Economic Council; and the distribution of the products of industry was the function of a special distributing agency, the Commissariat for Supply.

The entire output of industry was turned over to the Commissariat for Supply, each production unit being in turn furnished by the State with the fuel and raw materials required to continue operations. Commodities and foodstuffs were distributed through the Commissariat by ration cards and without the payment of money. Such supplies of goods as the Commissariat could muster—shoes, textiles, matches, ironware, nails, etc.—were delivered by the Commissariat into the hands of the peasantry in exchange for wheat, cereals and other farm products.

The breakdown of industrial production, however, made exchange upon an equal basis a virtual impossibility. The Commissariat for Supply could not gather sufficient quantities of manufactured products to pay the peasantry for the agricultural products that it was essential to have if the armies were to be kept in the field and the city population was to be saved from starvation. Requisitions therefore followed. The amount of peasant produce taken in this way by the State during 1918-20 was estimated at 620 million roubles a year.[2] The peasantry was paid for the goods taken in depreciated paper currency that would not buy the manufactured products which the peasants required. This food policy, therefore, involved virtual confiscation.

Although a decree on November 21, 1918 declared the free exchange of commodities to be illegal, private trade did not disappear entirely. In spite of the fact that infringements were severely punished, trade was carried on surreptitiously in the large cities, though it was necessarily on a very small scale. Because of its illegal and clandestine nature, however, it is not possible to calculate, or even to estimate, the exact proportions of this trade.

The cooperative societies were also curbed in their activities during the period of War Communism. When the commodity scarcity was at its height, in September, 1918, a governmental decree compelled them to distribute among the population all of the articles which they had in their possession. All cooperatives were eventually made subsidiaries of the Commissariat for Supply. The agricultural and craft cooperatives became gathering and collecting agencies for the Commissariat. The consumers' cooperatives, whose membership had grown from 11.55 million in 1917 to 18.5 mil-

lion by 1919, became the chief State organ for the supply and distribution of commodities, under the direction of the Commissariat for Supply. The organization of the movement was kept intact, but it was financed by the Commissariat for Finance and under a decree of December 13, 1920 its accounts were included in the State budget. Its independent activity, however, had ceased and all of its work was effected in accordance with the needs of the State economic bodies and in particular the Commissariat for Supply.

In the spring of 1921 the government recognized the need of making a fundamental change in its policy of internal trade. The peasantry, who had submitted, however reluctantly, to the policy of food requisitions during the period of Civil War and intervention, began to object to it vigorously when the military danger had abated. They limited food production as nearly as possible to their own needs, and surpluses were carefully secreted from the government collection agencies. The government, therefore, decided to reorganize trade in conformity with the New Economic Policy.

The first step taken in this direction was, as we have already noted, to permit the peasant to exercise greater freedom in the disposal of his surplus products. On March 21, 1921, a decree was published entitled "Introduction of the tax in kind in substitution for the forced levy upon foodstuffs and fodder."[3] The policy of requisitions was replaced by a tax in kind. Once this tax was paid the peasant was permitted freely to dispose of all cereals, agricultural produce and raw materials still remaining in his possession.

At about the same time internal trade on a money basis was reintroduced. Local retail trade was again made legal and the right to engage in it was extended

to the cooperative societies and to the private trader.

At the beginning of the New Economic Policy period, the State, having at its disposal only very limited resources, decided to concentrate these upon restoring basic capital in industry, fulfilling the electrification program, fighting the famine, and other important social and economic functions. Whatever available capital was at hand became absorbed in these tasks and there was none left for commercial turnover. The State was therefore compelled to allow a large share of the internal trading operations to fall into the hands of private capital. Private merchants immediately began to appear everywhere and to display long-concealed wares which were sold upon a money basis.

In 1923 private trade had its heyday. It not only totalled 58.6 percent of the total retail trade, but it also gained a footing in the wholesale field. Almost 22 percent of the wholesale trade for that year was privately conducted. Of the number of individual trading establishments in the country at the end of 1923, 94.2 percent of those in the towns and 84.5 percent of those in the villages were owned and operated by private capital.[4]

Since 1923 private capital engaged in internal trade has been fighting a losing battle, the percentage of its operations as compared with the total turnover having decreased steadily. It still maintains this diminishing role, however, and as late as May, 1925, a resolution of the fourteenth General Congress of the Communist Party declared that "a considerable place is open to the private trader." [5]

But in extending the right to operate in internal trade to private capital, the State by no means abandoned the field. At every stage it studies what is going on and then takes steps to regulate and direct along

those lines which it considers most desirable for the socialized national economy. This it achieves not through compulsion or "prohibition" of private trade but rather by a series of economic measures exercised on the market by the State trading organizations. Thus it exercises a tremendous influence upon the fixing of prices for various goods. It establishes State grain collection agencies, which insure justice to the peasants as well as the concentration of food products in the hands of the State's distributing agencies. It prohibits and severely punishes speculation and takes other measures to safeguard the consuming public.

Moreover, as soon as the industries were restored, State Syndicates were formed which began actively to engage in trade in the interests of the State. A number of the State trusts also established their own sales machinery and sold their products independently. These organizations are particularly successful in the wholesale field and the size of their turnover has grown rapidly. In addition, special State trading agencies have been created, the shares in which are held exclusively by government institutions and enterprises. As a result of policies put into practice by the government, estimates have been made that "250,000 privately owned shops were liquidated in 1924."[6] Many of the latter, however, continued operations in one form or another without taking out the required licenses.

The development of State trading agencies has been largely confined to wholesale business. In retail trade the cooperative societies have been steadily pre-empting the field.

State policy toward the trading activities of the cooperatives underwent radical modifications in the years immediately following the adoption of the New Eco-

nomic Policy. The Fourteenth Congress of the Communist Party resolved that "more attention be paid than hitherto to the requirements of the cooperatives, and that they should be given strong support by the Party and the State," and that "the cooperatives should constitute the principal link between the State economic authorities and the small rural producer." State policy has been modified in conformity with this resolution.

In the joint fight against the private traders, the policy of the State is to turn over to the cooperative societies an increasingly large role in the distribution of commodities. Competition between the societies and the State distributing agencies is largely eliminated by general agreements as to the spheres in which each can best operate. State industries turn over portions of their product to the cooperatives for sale. There is a tendency for all industry to be centralized in the State and for all output to be turned over for distribution to the cooperatives. The operations of the consumers' cooperative movement are financed by means of their own capital, home and foreign bank credits, credits on goods and long term State loans. The cooperative movement recognizes that it "on the one hand represents the interests of organized consumers, and on the other is closely bound by economic and political links to the whole of the Soviet system, so that it may withstand the competition of private trade which is opposed to the said system." [7]

By the end of 1925 the alliance of the State selling agencies and the cooperatives had gained a position of supremacy over the private trader in the internal trade market. The extent of this predominance is best illustrated by the following figures for wholesale and retail trade[8]:

SOVIET INTERNAL TRADE
(million roubles)
(A) WHOLESALE TRADE

	State	Coopera-tive	Total Socialized	Percent Social-ized	Private	Percent Private
1923-24	2,459	1,235	3,697	78.2	1,030	21.8
1924-25	3,500	2,651	6,151	90.5	644	9.5
1925-26	5,100	4,382	9,482	90.6	981	9.4
1926-27 (forecast)	6,304	5,406	11,710	91.0	1,159	9.0

(B) RETAIL TRADE

	State	Coopera-tive	Total Socialized	Percent Social-ized	Private	Percent Private
1923-24	566	1,515	2,081	41.4	2,946	58.6
1924-25	1,355	2,486	3,841	55.7	3,056	44.3
1925-26	1,754	4,370	6,124	61.2	3,879	38.8
1926-27 (forecast)	1,992	5,452	7,444	64.5	4,087	35.5

The total volume of trade, both wholesale and retail, shows a considerable increase during the years 1923-27. The percentage of trade which is socialized has also grown. In 1923-24 about four-fifths of the wholesale trade and two-fifths of the retail trade was socialized. By 1925-26 the proportion had risen to nine-tenths for wholesale and three-fifths for retail trade. The increase has been uninterrupted in both forms of trade. The private merchant handled less than a tenth of the wholesale business in 1925-26 and less than two-fifths of the retail business.

One of the particularly interesting forms of Russian internal trade is the Trade Fair. Many of these fairs have been held annually for decades and even centuries. The Kiev Fair dates back as far as 1717.

During the period of Military Communism the fairs were suspended, but because of their great importance for home trade they were revived in 1922. The fairs of outstanding importance are the Nizhni-Novgorod Fair, the Baku Fair, the Irbit Fair, the Kharkov Krest-

shenskaia Fair and the Kiev-Kontraktovaya Fair. In an effort to stimulate these fairs they are granted exemptions from many taxes, reduced transportation charges, and other privileges intended to facilitate their development.

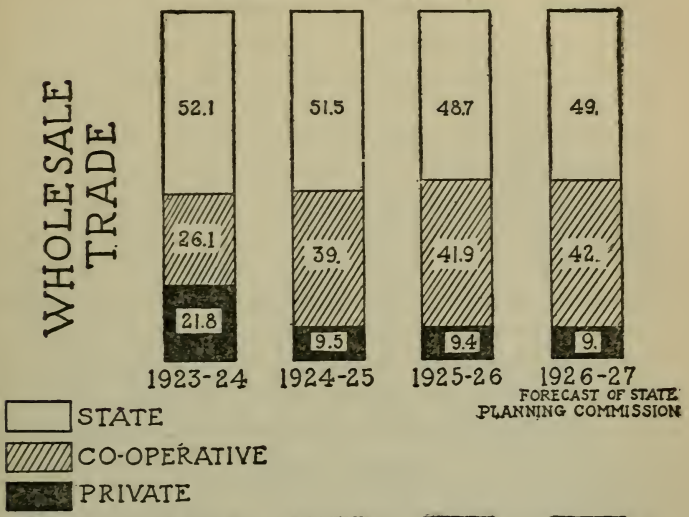
Finally, a word must be said concerning prices. The catastrophic famine of 1921 and the consequent scarcity of agricultural products had sent food prices soaring, while there was a definite drop in the costs of agricultural goods. With the recovery, however, quite an opposite tendency set in and the relations between agricultural and industrial prices were reversed. Industrial prices rose sharply; agricultural prices fell. So acute did this situation become that by 1924 a unit of cotton cloth cost the peasant double the number of units of grain that it did before the war.

Considerable success has been achieved by the Soviet government, however, in reducing the costs of manufactured articles through greater productivity of labor, electrification,—with its resulting diminution of fuel charges,—improvement of the trading apparatus and decreasing of profits. But in spite of the price reduction policy which has been in force since 1924, the price index figures for manufactured articles are still very high as compared with pre-war prices. Statistics compiled by the Conjuncture Institute, Moscow, place the national price index (1913 prices = 100) of industrial commodities in 1925-26 at 257; the national price index of agricultural commodities at 209; and the Moscow retail price index at 236. The relation of the industrial commodity index to the agricultural commodity index, taking the latter as 100, is 123. The full energy of the Commissariat for Trade has been thrown into the campaign to lower prices. Its orders from the government

TRADE IN THE SOVIET UNION

Percentage of Business done by

STATE, CO-OPERATIVE AND PRIVATE TRADING BODIES



Ann Coles

have been to the effect that by June 1, 1927 prices were to be lowered by 10 percent as compared with the prices prevailing on January 1st.

The chief impediment to the development of internal trade in the Soviet Union is the shortage of manufactured products. The great increase witnessed during recent years in industrial output has not been sufficient to keep pace with the growing needs of the population and with its purchasing capacity. As a result, there is a continual shortage of manufactured goods in many lines and the progress of domestic trade is consequently retarded. The latter must, of necessity, follow the direction taken by other branches of the economic machine. In the meanwhile, the government is meeting with outstanding successes in its campaign to arrange the exchange of agricultural and industrial products without the accumulation of private capital.

FOREIGN TRADE

The foreign trade of the Soviet Union has been completely socialized. The maintenance of a foreign trade monopoly, under the direction of the Commissariat for Home and Foreign Trade, is an immutable principle of Soviet economic policy. The foreign firm doing a purchasing or selling business with the Soviet Union must conduct all of its transactions through agencies created by and responsible to the government.

Russian foreign trade grew steadily during pre-war years. From 1889 until 1913 both imports and exports expanded continuously. The increased exports were made possible by the country's immense supplies of natural resources and raw materials as well as by her tremendous capacity for agricultural production. Her growing imports were due to the fact that the country

was in an early stage of industrialization. It could neither supply the needs of its population for manufactured goods from its own factories nor could it furnish such factories as were beginning to develop with the necessary equipment and machinery. It was largely dependent upon imports for the satisfaction of these vital industrial needs.

For the five year period preceding the war, foreign capital took increasing notice of the potential profit possibilities of industrially undeveloped Russia. It therefore flowed into the country more and more rapidly, not only in the form of credits but also in the shape of machines, tools and other industrial equipment. During this time, however, exports remained almost stationary. Between 1909 and 1913, therefore, the favorable balance of trade shrank from 522 million roubles in 1909 to 146 million roubles in 1913, and during the first half of 1914 Russia actually imported goods exceeding the amount which she exported.[9]

During the war, Russian exports were cut to a small fraction of their normal amount. Not only did her productive capacity diminish, but she needed all of her food and industrial products for the conduct of the war. At the same time her meager industrial capacity could not meet the requirements of war materials which she needed for military operations and these had to be imported from her allies. Imports, which stood at 1,374 million roubles in 1913 consequently jumped to 2,316.7 million roubles in 1917. During the same years exports dropped from 1,520.1 million roubles to 436.9 million roubles.[10]

From the establishment of the Soviet form of government in November, 1917, until early in 1920, i.e., during the period of foreign intervention, the Entente

powers declared Russia to be in a state of blockade and set about her the *cordon sanitaire*. The movement of goods, even of such items as medical supplies, either into or out of the country was strictly interdicted by the powers allied against her. This resulted in an almost complete cessation of the country's foreign trade.

On January 16, 1920 a resolution of the Supreme Council in Paris raised the blockade against Soviet Russia and the country was again in a position to reestablish trading relations with the outside world. One by one the European nations signed trading agreements or treaties with Russia. The first were Esthonia and Latvia in the spring of 1920. In May a trading agreement was signed with Sweden. On March, 1921, after considerable bickering, Great Britain signed the Anglo-Russian Trade Agreement. In April, 1922, Germany and Russia signed the trade treaty of Rapallo and during the following three years similar documents were signed with the other principal European and Asiatic powers.

Immediately foreign trade revived. The gain was slow, but trade steadily increased until, in 1925-26, the total foreign trade turnover reached over 49 percent of the turnover during the year prior to the outbreak of the war.*

The introduction of the New Economic Policy did not affect the State monopoly of foreign trade. The State continued, through its organizations, to exercise complete control over this branch of national economy.

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* Reduced to 1913 prices, the turnover for 1925-26 was 34.2 percent of the average turnover for the last five years preceding the war. As a matter of fact, however, the actual state of affairs is more favorable to the Soviet Union than this figure indicates. The pre-war statistics include the foreign trade turnover for the entire extent of the Russian Empire, including the present countries of Finland, Esthonia, Latvia, Lithuania, most of Poland and Bessarabia. In the case of foreign trade, where all goods arrive at a comparatively few ports and are subsequently shipped throughout the country, it is virtually impossible to compute the pre-war statistics for the present borders of the Soviet Union.

Private persons may engage in foreign trade only through a specially granted concession for each separate transaction.

This foreign trade monopoly is directed by the Commissariat for Home and Foreign Trade. The Commissariat has trade missions and trade agencies abroad through which it conducts its buying and selling activities with foreign firms and individuals. The functions of the Commissariat, since May, 1922, are largely of an administrative and directive nature. Its commercial activities are carried on for it by a specially organized State Trading Agency (*Gostorg*) and by joint stock companies, organized by the State for purposes of foreign trade.

The chief functions of the People's Commissariat for Trade are: (1) to develop and maintain trade relations with foreign countries in the interests of the Union; (2) to draw up a general import and export plan for the Soviet Union; (3) the application of the import and export plan and the supervision of transactions connected with such execution; (4) the formulation and administration of the customs policy of the union; (5) the organization of mixed and other companies engaged in foreign trade, and discussion of regulations concerning the placing of certain branches of foreign trade on a concession or a joint-stock company basis; (6) to supervise, regulate and control the foreign trade carried on by all institutions, organizations and individuals; (7) to secure the interests of foreign trade in matters of transportation, warehousing, insurance, etc.; and (8) to exercise control over commercial ports. This series of rights and duties places the Commissariat in a position of complete domination over the import and export activities of the country.

The foreign trade section of the Commissariat for Trade consists of the People's Commissar for Trade and his Collegium, a Secretariat, and seven administrative and managing boards.

The Commissar and his Collegium are charged with the duty of directing and managing foreign trade as a whole. It is they who decide all important matters of policy concerning the foreign commerce of the Union. The Secretariat conducts routine matters and supervises the execution of orders, instructions and the like, issued by the Commissariat. The seven boards are specialized sections each functioning within a single sphere such as administration, regulation, economic-juridical, financial, transport and customs.

The right to carry on foreign trade in the Soviet Union is enjoyed by the following groups:

(1) The Commercial Agencies of the Commissariat for Trade. These consist of the State import and export offices, which operate exclusively in Soviet territory, and of Commercial Sections of the Trade Delegations in foreign countries. The latter execute the purchasing and selling program of the Commissariat for Trade with the nation to which they are accredited.

(2) State Economic Enterprises, such as State factories, mines and the like. They are permitted to sell abroad only articles of their own manufacture and to purchase only materials needed to conduct their own operations or to supply their workers. They are not permitted to resell articles or materials thus purchased.

(3) The State Bank and other Credit Institutions. These have the right to sell abroad exported goods which have been offered as security for loans advanced by them and confiscated for non-payment of the lien. They may also sell abroad goods, originally intended for import,

upon which they have advanced loans, the import of which subsequently became impossible and which have not been cleared by the borrower or Trade Delegation. They are also empowered to transfer liens to foreign banks.

(4) Cooperative Societies are, as a rule, permitted to conduct transactions abroad within limits laid down by the Commissariat for Trade.

(5) Joint Stock Companies. These are organized by the Commissariat for Trade, with ratification by the Council of Labor and Defense. They may be purely State financed, mixed companies with Russian and foreign capital, or foreign companies. All three types, however, are subject to the same rules as private enterprises and must secure permits for each separate foreign transaction. The formation of companies in which foreign capital participates requires ratification by the Council of People's Commissars, through the Chief Concessions Committee.

(6) All other State institutions, organizations, individuals, etc., may conduct foreign operations only by permission of the Commissariat of Trade for each separate transaction.

The representatives of the Commissariat for Trade in foreign countries are Trade Missions. They are, at the same time, a part of the official mission of the Soviet Union in the respective countries. They are appointed and recalled by resolution of the Council of People's Commissars upon the recommendation of the Comissariat of Trade. In making appointments and withdrawals, consultation is also had with the Commissariat for Foreign Affairs.

The task of the Trade Mission is to take complete charge, in the country to which it is assigned, of the

commercial activities of the Commissariat for Trade with the firms and individuals of that nation. It must, in addition, make reports to its home office on the economic conditions in the country, make surveys of the trade possibilities between that country and the Soviet Union, draw up trade agreements and understandings and supervise the trading activities of mixed companies, Russian citizens and all other Russian establishments engaged in trade with the country to which it is accredited.

In countries with which the Soviet Union has not yet established political relations Trade Agencies are established. Their work is in each case defined separately by the Commissariat for Trade and although it is in large part of a regulatory nature, they also conduct commercial operations in countries where political circumstances permit.

Foreign trade is financed by many of the State credit institutions, but particularly by the Bank for Foreign Trade. This bank began its activities in March, 1924, for the special purpose of financing foreign trade. It is organized as a Joint Stock Company with the majority of its stock held by the Soviet Economic bodies concerned with foreign trade. Its capital, originally 10 million roubles, has been steadily increased until it is now 40 million roubles. It conducts its operations through short term loans against merchandise. Its clients consist chiefly of State organizations, as it is they who carry on the bulk of the country's export and import transactions.

Immediately upon the conclusion of hostilities in 1921, a revival of foreign trade began. From having ceased almost completely by the beginning of 1921, it has grown to 1,424 million roubles by 1925-26.

Up to the end of the economic year 1921-22, the bad harvests required the importation of large quantities of foodstuffs, resulting in an excess of imports over exports and necessitating the shipment of gold abroad to cover the adverse balance thus created. In the year 1922-23 foreign trade became normal. The imports of foodstuffs were insignificant and purchases abroad were composed largely of materials for purposes of production. The years 1922-23 and 1923-24 showed favorable trade balances of 23.2 million roubles and 83.3 million roubles respectively. In 1924-25 and 1925-26 there were again adverse balances, but for the first three months of 1926-27 a favorable balance of 76.4 million roubles was again shown. The following figures show the tempo of development since 1922 as compared with 1913:

YEAR	IMPORTS (Roubles)	EXPORTS (Roubles)
1913	1,374,034,000	1,520,133,000
1922-23	187,400,000	210,600,000
1923-24	439,300,000	522,600,000
1924-25	718,800,000	567,600,000
1925-26	756,000,000	668,000,000
1926-27 (first quarter)	131,900,000	208,300,000

The total turnover during 1925-26 across the European frontiers amounted to 1,263 million roubles. That across the Asiatic border totalled 160.5 million roubles.[11] The favorable balance of 76.4 million roubles during the first quarter of 1926-27 compares with an unfavorable balance of 29.7 million roubles during the corresponding months of 1925-26. During 1925-26 the bulk of the trade was distributed among the foreign nations in the following manner:[12]


SOVIET
FOREIGN TRADE
1922 TO -26
(MILLION ROUBLES)
IMPORTS
EXPORTS
210.6M.
187.4M.
522.6M.
439.3M.
567.6M.
718.8M.
668M.
756M.
1922-23
1923-24
1924-25
1925-26
Ellis

SOVIET FOREIGN TRADE, 1925-26
(million roubles)

	Total	*Exports*	*Imports*
England	312.5	187.1	125.4
Germany	283.2	111.0	172.2
United States	144.9	25.0	119.9
Holland	87.8	21.0	66.8
Persia	68.4	32.3	36.1
France	58.8	39.8	19.0
Italy	56.7	33.5	23.2
China	30.7	13.1	17.6
Belgium	20.5	18.6	1.9
Poland	12.3	3.1	9.2

As regards imports, it is the policy of the government to concentrate upon the purchase of raw materials needed by industry and upon machinery which will serve to further the industrialization of the country. For such items it attempts to pay, to as great a degree as is possible, by the sale abroad of foodstuffs. In 1925-26 raw materials were imported to a value of 271.6 million roubles; semi-manufactured products 147.5 million roubles; industrial machinery 73 million roubles; and agricultural machinery 58.3 million roubles. These figures all represent increases over each year since the Revolution. The import of foodstuffs, on the other hand, fell from 166.7 million roubles in 1924-25 to 38.8 million roubles in 1925-26. Of the total export figures of 688 million roubles in 1925-26, 426.9 million roubles were in the form of agricultural produce.

Soviet foreign trade is capable of considerable additional expansion. As has been pointed out by the editor of the *Journal of Commerce*, "the problem of Russian trade at the present time is how to double within a short

period the $650,000,000 of foreign business which she now has." [13]

The Soviet Union wishes, at the present moment, to place in foreign markets orders for machinery and other means of production in the largest possible quantities. She is hampered by inadequate financial resources and lack of sufficient credit facilities. Of late a marked improvement is noticeable, particularly among German and American firms, in the matter of granting the credits for purchases of the machinery and raw materials which the Soviet Union needs for speeding up the development of her own national economy.

CHAPTER IX

FINANCE, BANKING AND CREDIT

FINANCE, banking and credit do not exist any place in the world as things off by themselves. Rather are they instruments adapting themselves to the needs of, and reflecting the conditions of, all phases of a nation's economic life. Monetary organization reflects *per se* economic health, and exists on a salutary basis only when it is concomitant with vigorous productive forces and goods turnover. Financial organization in the Soviet Union mirrors the changes in the Soviet economic structure, as well as the movements of production, international trade, the balanced budget and the other basic economic relations of the Union.

In pre-revolutionary Russia landlordism and nascent capitalistic enterprise existed side by side. The credit institutions of the nation were accordingly organized to cater to the requirements of both industrial and agricultural production.

Aside from the Bank of Issue (The State Bank), the pre-revolutionary financial system was made up chiefly of two types of banking institutions: the "Mortgage Banks," which provided for the financial needs of the landlords, and the "Commercial Banks," which catered to industry. A minor place was occupied by other types of small financial institutions including the "Mutual Credit Companies," which were based upon the principle of mutual liability of all members.

The chief business of the mortgage banks was granting mortgage loans secured by private land-holdings, for the most part the large estates, and by town buildings. There were two State Banks engaged in this method of enterprise, "the Nobles' Bank," and the "Peasants' Bank," as well as ten joint stock mortgage banks, several "Municipal Credit Societies," and a few other small mortgage organizations. In 1916 private landowners were indebted to these banks to the extent of 3,724 million roubles while the towns owed them an additional 1,804 million against buildings.[1]

The "Commercial Banks" issued short term credits to industrial undertakings. On January 1, 1914, there existed within Russia 46 such banks, which had a network of 822 branches and agencies, 33 of which were in foreign countries. By 1916, the year preceding the Revolution, they had 1,967 million roubles invested in the discount of bills and 1,749 million roubles in loans.[2]

The gigantic internal upheavals which took place in Russian national economic life in the three decades preceding the war and the Revolution, i.e., the encroachments of industrialism upon the strongholds of agricultural economy, had led to the establishment, in 1897, of a currency based upon the gold standard. A law passed in that year gave to the State Bank the right to emit paper currency without gold backing up to only 300 million roubles. Further issues had to have a hundred percent gold security.

With the exception of the beginning of 1906 (immediately following the Revolution of 1905), the State Bank made but slight use of its right to issue paper money without gold backing. Its gold reserve was far greater than that in other countries. On July 16, 1914, immediately preceding the declaration of war, this gold

backing was 98.2 percent of the value of all notes then in circulation. A forty percent reserve was considered ample elsewhere.

But this superficially sound condition of Russian finance was built upon a series of internal contradictions which had strained the nation's economic framework and was leading it fast toward the cracking point. The large gold reserve strengthened the position of Russian capitalism in foreign countries. But it was maintained through the reckless taxation of the already impoverished peasantry; through a governmental monopoly on Vodka; and, lastly, through foreign loans.

The influx of foreign capital took the form of long-term State loans and short-term credits to the commercial banks. Payment of the interest on these debts, however, necessitated the export of commodities in excess of the capacity of healthy national economy. The country was falling into the vicious circle of dependence upon the import of foreign capital and commodities to an extent for which she could not afford to pay and was finding it necessary to import capital for amortization charges and even for the payment of interest. Her favorable trade balance decreased from 522 million roubles in 1909 to 146 million in 1913. In the first half of 1914 her imports were in excess of her exports.

The eventual financial dislocation which this relationship between the Russian taxpayer, Czarism and the foreign creditor promised for the future was precipitated by war necessity. Czarism was already living beyond its income; its expenditures piled up with dizzying rapidity. Financial collapse was inevitable.

The war brought with it the prohibition of the liquor traffic, involving the loss of the large revenues from the Vodka monopoly. The German blockade shut the

country off from the imports upon which it had grown dependent. This shattered the Russian economic system and left the business men and the landlords in a position where they could neither pay the costs of the war through taxation or subscribe large sums to internal loans. The peasants and workers had little surplus, and in any case they were not accustomed to bond-buying. Consequently there was but one avenue open to the Czarist Government: the printing press and the emission of unbacked paper currency. In no other of the warring nations at that period was such extensive use made of this type of "financing."

By a law of July 27, 1914, the payment of credit notes in gold was suspended. The volume of paper notes issued was rapidly increased until, by the end of 1916, it totalled 6.5 billion roubles. When the March Revolution occurred (1917), the Czarist regime, in two years and a half, had issued approximately 8.4 billion paper roubles.

The Provisional Government of Kerensky was unable to put a stop to this process of inflation. During its brief existence it doubled the paper currency in circulation—raising it to 16.5 billion roubles by October, 1917. The cheap money made prices soar. In 1917 they were eight times their pre-war level. At the time of the Bolshevik Revolution (November, 1917) the rouble was worth about 30 kopecks in London.

This was the paralyzed financial structure taken over by the Russian Revolution.

From the seizure of power by the Bolsheviks in November, 1917, until the inauguration of the New Economic Policy in 1921, the Soviet leaders hoped that the Proletarian Revolution would spread to the western countries and that, as a consequence, a socialist society

could be constructed. The group in power believed that the traditional financial methods were decadent and archaic. In their stead they hoped to substitute a system of financial accounting and control based upon units of labor power. Trade was to be carried on by direct barter and would involve only a system of bookkeeping.

Accordingly, the Soviet Government liquidated the former financial institutions. By a decree of December 17, 1917 (old style), all banks were nationalized and all of the former private credit establishments were amalgamated with the old State Bank into a single new institution, the "People's Bank." But as nationalization proceeded, and private enterprise was made illegal, all financing was done from the budget and the function of credit institutions disappeared. Finally, by a decree of January 19, 1920, the People's Bank was in its turn liquidated and merged with the "Budget Accounting Department." With the dissolution of the last of the institutions of credit, all of its mediums such as checks, drafts, securities, etc., also made their final exit from the financial scene.

In the realm of currency the objective, during the early years of the Revolution, was a transition toward moneyless economy. The Soviet leaders were not, therefore, appalled by the realization of the consequence of inflation. A decree of October 26, 1918, increased by 33.5 billion roubles the issuing rights of the People's Bank, and after the liquidation of the bank the issue of paper currency was carried on without any formal extension of the right. By the middle of 1921 the rouble was worth one-seventy or eighty-thousandth of its pre-war value.[3]

The resources of the State, during this period of

"Military Communism," aside from the emission of paper currency, were requisitions in kind. These requisitions were the real force behind the State budget. They consisted in forcible sequestrations of surplus grain, cattle and provisions from the peasantry. The products of industry were also turned over and distributed by the State. Wages were paid in kind. Paper currency limited itself to a very few places in the cities where private trading was illegally continued on a small scale. In other centers the population reckoned values exclusively in terms of food, textiles and other commodities. After 1921 a formal food tax was substituted for the requisition system, but due to the severe industrial crisis which characterized that period and an inability to bring into being an immediate transition, the levies continued to play an important role in the State budget until 1923.

With the inauguration of the New Economic Policy, the financial system was completely reorganized and put upon a new foundation.

The reorganization of economic life upon the basis of the New Economic Policy involved the partial reappearance of private production and the calculation of profits, even of State enterprises, on a commercial basis. This made the establishment of a stable currency a matter of prime necessity. The establishment of such a currency passed through two stages. The first of these was the issue of *tchervontsy* at the end of 1922 by the newly organized State Bank. The other was the final withdrawal from use of the Soviet rouble between February and May, 1924.

The State Bank commenced operations as a purely credit institution on November 16, 1921. However, by a decree of the Council of People's Commissars,

dated October 11, 1922, the bank was further empowered to issue bank-notes. It thus became a bank of issue and began the emission of tchervontsy* on November 27, 1922. The value of the new currency was fixed as ten former gold roubles, secured by a legal minimum of 25 percent in precious metals and stable foreign currency and the remainder by easily realizable securities. The State Bank does its utmost, however, to keep the amount of "hard" note cover well above the legal minimum and has been able, to date, to maintain it at between 30 and 50 percent.

Side by side with the tchervontsy, however, the treasury continued to issue and circulate the old Soviet notes. This parallel relationship of the two paper currencies continued for fifteen months, without any legal exchange rate existing between them. The government maintained the old currency primarily because there was, at this period, still a considerable deficit in the budget which must, of necessity, be covered by the issuance of paper currency. To do this in the new currency was not considered expedient.

From the first there was confidence in the tchervontsy, which remained stable while the Soviet notes fell in value. The old roubles served in large part merely as small change, the ten rouble note being driven out by the tchervonetz. The exchange relation between the "bad" and the "good" money altered from day to day, the tchervonetz notes rising in value to a slight premium. It did not take very long before the superiority of the new money received general and widespread recognition.

By the end of February, 1924, the Soviet Govern-

* The gold tchervonetz contains 119.4826 grains of fine gold, equivalent, in United States currency, to $5.146. The equivalent of the gold rouble is 51.4567 cents.

ment felt able to reduce the nation's currency to a single, stable basis. The productive forces of the country were experiencing a general revival. Agriculture was being reestablished to its pre-war capacity. The commodity market was beginning to prosper and Russia's trade balance, which in the calendar year 1922 had shown an adverse balance of 188 million roubles, was reversed in the calendar year 1923 to a favorable balance of 61 million roubles. The assets in precious metals held by the State Bank increased in 1923 alone by more than 100 million roubles and the yields to the State from national taxation amounted during the budget year 1922-23 to 450 million roubles. Lastly, the Civil War and intervention had been successfully terminated. All of these factors convinced the government that the time had finally arrived for the liquidation of the Soviet rouble.

Accordingly, a series of laws passed during the months of February and March 1924, finally liquidated the Soviet roubles and unified the monetary system. A decree of February empowered the Commissariat for Finance to issue paper "currency notes" in denominations of 1, 3, and 5 roubles gold. These were made legal tender, but were restricted in amount to one-half of the amount of tchervontsy put into circulation by the State Bank. On February 14th a law discontinued the issuance of the old Soviet paper rouble. This old currency, however, was continued as legal tender until May 10th and was exchangeable by the People's Commissariat for Finance up to May 31, 1924, at the rate of 50,000 roubles of 1923 notes (50,000 million old roubles) per gold rouble. After June, 1924, the old Soviet roubles ceased any longer to be legal tender.

Two additional laws concluded the cycle of currency reform. One, dated February 7, 1924, declared that thereafter the State Bank would accept or exchange the new Treasury notes, without limit, at the rate of 10 gold rouble notes for one tchervonetz. The country was, thereby, given a legal tender, stable paper currency in denominations of 1, 3, and 5 roubles. A metal, small-change currency was further provided when, on February 22, 1924, a decree was issued instructing the Commissariat for Finance to issue silver and copper coinage in denominations of 1, 2, 3 and 5 kopecks, copper, and 10, 15, 20, 25 kopecks and 1 rouble, silver. To this a brass coinage was added later in denominations parallel to the copper.

Since its organization upon its present basis, the currency of the Soviet Union has been kept in amount strictly within the bounds warranted by the development of industry and commodity turnover. While this policy has resulted in a comparatively small volume of money, it has, on the other hand, caused its continuous maintenance at par value both within the Russian borders and on the foreign exchange. Its growth in volume has been as follows:

	Roubles
Oct. 1, 1923	271,000,000
Oct. 1, 1924	622,700,000
Oct. 1, 1925	1,142,884,700
Oct. 1, 1926	1,343,184,300
Jan. 1, 1927	1,412,633,000

The volume in circulation on January 1, 1927 was divided as follows:

Bank Notes of the State Bank..	812,259,000
Treasury Bills	427,402,000
Silver Coins	162,252,000
Copper Coins	8,680,000
Bronze Coins	2,040,000
	1,412,633,000

The volume of money in circulation before the war was 1,921.7 million roubles. Therefore, although agriculture, industry and trade now approximate their pre-war levels, the amount of money in circulation is still below the pre-war figure.

The New Economic Policy also rendered necessary the creation of a banking system, in order to concentrate State and private funds and to extend credits to both the State enterprises and to the peasantry. It soon became apparent that the newly organized enterprises could not carry on entirely through grants from the public Budget. The necessity for credit resulted in the gradual construction of a complete, State-controlled banking and credit machinery.

As banking facilities had been non-existent in Russia between 1919 and 1921, the State was faced with the necessity of beginning at the bottom and constructing the necessary credit system. Accordingly, the Commissar for Finance, during September, 1921, hurriedly worked out plans for a State Bank. These he submitted for approval and on October 3, 1921, they received the sanction of the All-Russian Central Executive Committee.

On October 12, 1921, the Council of People's Commissars issued a decree establishing the new State Bank. It commenced operations in Moscow on November 16,

1921, for the main purpose, in the words of its regulations, of "aiding the development of industry, agriculture and trade by means of credit and other banking operations, and with the object of concentrating monetary transactions and adopting other measures for securing a sound monetary system." It immediately began to open branches and agencies throughout the country. By the first of January, 1922, these provincial offices numbered twenty-one.

The original capital of the bank consisted of a treasury subvention of two billion paper roubles worth less than 15 million pre-war gold roubles at the time that the bank began business. By financing foreign trade with provision for repayment in foreign currency, by sharing in the profits on the transaction of its borrowers, and by requiring gold standard values when borrowers were repaying loans, the bank avoided the disastrous results of the money inflation and converted its holdings into stable assets.

Gradually the bank revived all of the familiar credit instruments and machinery. Relations were established with foreign banks. The check system and clearings were introduced. Foreign currency was regulated in the home market and regularly quoted, etc. On October 11, 1922, it was also made the bank of issue and began note issue of the new unit of currency, the tchervonetz.

The capital of the bank has been steadily increasing, rising from 50 million roubles on October 1, 1923, to 100 million on October 1, 1924, and to 116 million on October 1, 1926. During the same period its current and deposit accounts rose from 178.9 million roubles to 1,147.7 million roubles. Within a single year, from October 1, 1925, to October 1, 1926, its discount operations increased from 1,516 million roubles to 1,964.9

million roubles. To take care of this constantly mounting volume of business the State Bank added branches until, in February, 1927, they numbered 488, to which may be added about 500 offices of the Treasury which now function as agencies of the State Bank. These branches and treasury offices are located in all parts of the Soviet Union.

During the first year of its existence, the State Bank enjoyed a virtual monopoly upon the banking business of the country. But the exigencies of Russia's rapidly expanding economic life soon demonstrated the necessity of a more diversified banking system and by the end of 1922 the organization of other banks was begun.

Besides being the bank of issue, the State Bank remains the largest commercial bank within the Soviet Union. Its commercial service is now paralleled, however, by that of a series of "special" banks, each of which operates within a limited sphere of the national economy. Thus, industry is accommodated by the All-Union Industrial Bank (*Prombank*); the Bank of Foreign Trade finances the export and import operations of the Union; Agricultural credit is extended by the Central Agricultural Bank; the cooperatives do business with the All-Russian Cooperative Bank; credit for the work of electrification is supplied either by the State or by the Bank of Electrification, etc. In addition, banks are organized to serve specific territories such as the Central Asiatic Commercial Bank, the Far Eastern Bank and the North Caucasian Commercial Bank. Each of the independent Republics which go to make up the Soviet Union has its own banks, and the larger municipalities also have their own municipal banks. In addition to these organizations there must also be added a number of mutual credit societies which

finance small-scale industrial and trading enterprises. In all, the banking system comprises over 1,400 units, exclusive of the savings banks which numbered 14,740 at the beginning of 1927.

The total assets of all of the credit institutions of the Soviet Union (not including savings banks) were 6,349.6 million roubles on September 1, 1926. On October 1, 1925, they had been 5,473.3 million roubles. Their total capital, on September 1, 1926, amounted to 115 million roubles. On February 1, 1927, the total savings bank deposits amounted to 125.059 million roubles. They were 86 million roubles on October 1, 1926, and 32.58 million roubles on October 1, 1925.

Through the establishment of this comprehensive credit machinery, the financing of agriculture and industry is steadily being transferred from the budget to the banks. This has not, as yet, been completely accomplished. The budget for the financial year 1925-26 provided for expenditures upon the national economy amounting to 544.6 million roubles, a sum representing 13.9 percent of the entire budget. Of this amount 231.6 million roubles were advanced to industry and electrification projects, the remainder to agriculture. The budget for the economic year 1926-27 provides for an increased allocation from the budget to the national economy, the new sum being set at 901.3 million roubles, 18 percent of the total estimated expenditure.[4] This sum includes 150 million roubles which are to be expended upon irrigation, combating drought and other agricultural improvements; 494 million roubles to be expended upon nationalized industry; 88 million roubles upon electrification; etc. For the most part the division of function between the banks and the budget for financing industry and agriculture provide

for the banks to finance the sounder and better established enterprises. Those spheres of the national economy, particularly mining and heavy industry, which require grants rather than loans, receive their help from the budget. During 1925-26 the State received back from its enterprises, in the form of revenues, a sum approximating 442 million roubles. In 1926-27 they are expected to return (not including Transport or Posts and Telegraphs) 553.7 million roubles.

The income of the Soviet Union during its early years consisted in emissions of paper money and, more important, forcible food requisitions and taxes in kind. But with the adoption of the New Economic Policy, the revival of industry and agriculture and the establishment of a stable currency, these gradually receded. By 1923-24 they had been reduced to 3 percent of the budget. The following year they disappeared. The same year (1924-25) also witnessed the first balanced budget since the Revolution. The budget has, of course, been balanced ever since. The current year is so budgeted as to produce a surplus of 100 million roubles, as compared with a surplus of 13 million in 1925-26.

The growth of the national budget is of particular economic significance in the Soviet Union where industry, trade, transport and banking are conducted either directly by the government or for it by the State Trusts. The Soviet budget, as a consequence, is to a considerable extent a matter of planning the national economy.

The dimensions of the State Budget grew as follows: 1922-23, 1,460 million roubles; 1923-24, 2,298.1 million roubles; 1924-25, 2,935.2 million roubles; 1925-26, 3,876.9 million roubles. For the 1926-27 budget the estimates provided for further increases to 5,002.3 million roubles,[5] to be derived from (a) taxation; (b) revenues

from transportation enterprises, posts, telegraphs, and telephones; (c) State industrial and trading enterprises, forests, etc., and (d) extraordinary revenue, in the form of internal government loans. In the budget for 1926-27 it is anticipated that taxation will yield 2,333.566 million roubles; Posts and Telegraphs, 162 million roubles; Transport, 1,631.255 million roubles; State economic enterprises, 553.747 million roubles; State Loans 220 million roubles; and the remainder (about 2 percent of the total) from miscellaneous sources.

These figures do not include the local budgets of the cities, towns, provinces, districts, etc. The national budget provides for the needs of departments whose activities encompass the entire Union, such as the army, navy, transport, etc. The income is derived from direct and indirect taxation, State industry, trade, and credit institutions. Social and cultural improvement, education, health work, etc., are largely financed either out of the local budgets or from the budgets of the independent republics composing the Soviet Union.

A little less than half of the revenues expended in the budget at the present time are derived by the Soviet State from direct or indirect taxes. These now number seven, viz.: (1) An industrial, trade and handicraft tax, payable to the government by all engaged in these fields of activity. The tax varies from ½ percent to 8 percent of their turnover, graduated in accordance with the profits of the undertaking; (2) A single agricultural tax upon the peasantry. The rates of this tax vary considerably for the several economic strata among the peasant groups. The several taxes as well as special assessments formerly levied upon those who cultivate the soil have now been amalgamated into one. The main

burden is being shifted from the poorer to the wealthier peasants. Ninety-three percent of the revenue from this tax goes to the State; 7 percent to the local authorities. (3) A property and income tax is levied only in the towns. Small properties and incomes pay no tax. The rate gradually ascends in accordance with the income of the taxpayer and the value of his property. (4) Stamp duties are levied upon deeds, certain insurance policies, purchase or sale of buildings, etc. (5) Rent is charged upon municipal land and lands used by transport undertakings. (6) Local taxes are paid by those whose economic activities or property are under the jurisdiction of the local Soviets. Such are the timber estates, hawker's trade, auction sales, etc. (7) Lastly are the excise duties. Here again the rates vary considerably upon the different articles of consumption. In the excise revenues levied during 1925-26, about one-third (32.7 percent) was received from taxes levied upon articles of prime necessity. The remainder of the tax was placed upon articles considered less indispensable, such as tobacco, coffee, cardboard cigarette mouthpieces, etc. Superfluous articles such as intoxicating liquor paid, during 1925-26, 46.2 percent of the entire excise revenue.

It is the fixed policy of the Soviet Government to adapt all taxes to the paying capacity of the population, to shift as much as possible of the burden to those best able to pay and to use its taxing power as a weapon against any undue accumulation of wealth in the hands of a few individuals. According to approximate estimates, in 1924-25 the peasantry paid 5 gold roubles in taxes per capita, workers and office employees paid 14 gold roubles, while other groups paid 42 gold roubles.[6]

Since the adoption of the New Economic Policy, tax returns have been increasing steadily. Taxes are still,

however, lighter than before the war, when they amounted to 13 percent of the total national income. Under the Soviets the proportion of both federal *and* local taxes to the national income has been as follows:[7]

Fiscal Year	*Nat'l. Income (million gold roubles)*	*Tax Revenues (million gold roubles)*	*Percentage of Tax Revenues to Nat'l. Income*
1922-23	7,369	569.5	7.7
1923-24	11,764	997.2	8.5
1924-25	15,155	1,544.1	10.2
1925-26	20,084	2,195.9	10.9

In the federal budget alone the returns from taxation for 1926-27 are estimated at 2,333.5 million roubles. In the year 1922-23, the first following the inauguration of the New Economic Policy, receipts to the National Budget from taxation totalled 475 million roubles.

These revenues plus the revenues derived from State enterprises have made necessary the flotation of only a relatively small number of internal loans in order to finance the administration and operations of the Soviet State. For since its seizure of power in 1917 the Soviet Government, alone among the European powers, has contracted no debts to foreign governments or to foreign bankers. The national debt of the Union, which is almost entirely composed of internal Government loans, has grown from 127.1 million roubles in 1923 to 750.1 million roubles on January 1, 1927. The money derived from loans bore the following relation to the total revenues of the State budget: 1922-23, 5.7 percent; 1923-24, 7.9 percent; 1924-25, 4.3 percent; 1925-26, 3.9 percent. These loans are gaining increasing popularity in the Union as a method of investing savings.

In the Soviet Union since 1921 the currency has been

placed upon a gold basis and has been stabilized at par. The credit and banking system has been restored. The government is one of the very few in Europe operating under a balanced budget without foreign assistance. These facts reflect the healthy condition of Russian economics, since the improvements have been effected on the basis of surpluses accumulated out of the country's own productive forces and without any aid from foreign capital.

CHAPTER X

THE COOPERATIVE MOVEMENT

Cooperative organizations play a conspicuous role both in the daily life of the Soviet Union population and in the program through which the Communist Party and the Soviet State are building a Socialist society. For this reason they are being generously encouraged and extended. From year to year they fill a larger place in the urban and rural life of the Soviet Union. Consumers' cooperatives have become the main channel for the retail distribution of goods; agricultural cooperatives are penetrating practically all aspects of agricultural production and exchange; handicraft cooperatives are gaining a strong influence over the home industries, while the housing and building cooperatives, which were at first confined largely to the cities, are reaching the smaller urban areas and are even to be found in the villages.

The Soviet leaders do not expect their cooperatives to operate on the same plane as the cooperative societies in other European nations and in America. They scoff at the theories of the western cooperators, who would use the cooperative movement instead of the political struggle of the working class as a means of establishing a new social order.

They contend, however, that in a country which has already passed through a successful proletarian revolution, and where the State power is in the hands of the

working class, cooperation is a prime factor in the building up of a Socialist economy. "Here in Russia," wrote Lenin in 1923, "where the power is in the hands of the working class, where all the means of production are the property of the State, the sole task remaining to us has been to secure a real cooperative alliance of the population. Once given the pre-requisite of complete cooperation by the population, that Socialism which hitherto, and rightly, evoked at most an indulgent smile from those who were convinced of the necessity of the class struggle, of the struggle for political power, has obviously attained its end. . . . We should now be right to say that the mere growth of cooperation here with us is equivalent to the growth of Socialism. . . . If cooperation was completely developed, we should already be standing with both our feet firmly planted upon Socialist soil."[1]

Under the New Economic Policy, the Soviet Union reversed its attitude toward the cooperatives. Instead of trying to bring them under State control, as it did until 1921, the Union is seeking to develop the cooperatives along Communist lines by making the cooperative societies a weapon with which to fight the private traders. By securing the participation of the masses of workers, and particularly of peasants, in the cooperative system of distribution they accustom them to look upon the retailing agencies that serve them as their own organizations, and to familiarize them with the way in which industry and distribution work in a Socialist society. In the rural districts the cooperative movement is especially effective, because it teaches the peasants how to carry on collective work and collective activity and, in this way, it facilitates the spread of the Communist idea among them.

This is not only the conception of the cooperation which motivates the officials of the Soviet State. It is also the opinion of the cooperatives as to their own function. The officials of *Centrosoyus,* the federation of all of the consumers' cooperatives in the Soviet Union, emphasized this in a written description of their work which they gave to the writer in November, 1926. "We do not consider our cooperatives as purely trade organizations," they said. "We want to eliminate private trade. We deem cooperatives to be one of the systems, one of the links of the chain leading to Socialism. The cooperative movement in our land has a Socialist goal. . . . The Consumers' Cooperative Movement must not only have for its aim to supply the workers and peasantry with cheaper goods and to eliminate private capital, but to reorganize trade in such a way that the peasantry in its requirements would be so directly bound with our Socialist industry, that, on the ground of common needs, a new Socialist Soviet Society could be created."

As economic relations are now organized in the Soviet Union the cooperatives are serving as an indispensable link between the agricultural producer and the State industries of the towns and between producers and consumers; that is, between those sectors in which the socialized forces are strong and those in which they are still weak. Both the Communist Party and the Trade Unions therefore do everything within their power to further the work of cooperative development. They carry on intensive cooperative propaganda; they support the cooperatives in their efforts to secure new members; and they deposit their funds in cooperative banks in order to strengthen the financial basis of the cooperative societies. Every Communist Party Convention and every Trade Union Congress makes discussion of co-

operative questions a prominent item upon its order of business.

The cooperative movement had struck deep roots into Russian soil long before the outbreak of the World War or the Bolshevik Revolution. As early as 1864 consumers' cooperative societies were organized by the middle classes, who monopolized their membership and alone directed their management and determined their policies. Later, consumers' cooperatives were organized among the industrial workers, but at the initiative of the employing classes, not of the workers themselves.

After the Revolution of 1905 independent working class cooperatives grew rapidly and steadily. At first they met with hostility from the Czar's government, but after the outbreak of the World War the advantage of cooperatives as means for provisioning the army and the civil population was so impressed upon the Czar's government that its previous antagonistic attitude was replaced by one of encouragement. In 1915, 3,500 consumers' cooperative societies were established; in 1916 an additional 4,500; and in 1917, 4,000.[2] The old government did not, however, give legal recognition to the independent cooperative movement.

The Provisional Government of Kerensky repealed all of the laws which had restricted the work of cooperative organizations and passed legislation which facilitated the formation of new societies. As a result, when the Communist Revolution occurred, the consumers' cooperative societies numbered 25,000 and their membership had risen to above seven million. They were, however, dominated by the representatives of the middle classes even during this priod. They were strongly anti-Bolshevik and passed many resolutions against the principle of the class struggle.

When the Bolsheviks came into power, they found that the cooperatives were strong centers of political opposition. The cooperatives opposed the cooperative policy and the entire economic program of the Soviets. The societies were dominated by the Social Revolutionaries and the Mensheviks who not only opposed the Bolsheviks politically but also took up arms against them in the civil war. The inevitable result was one of hostility between the new Bolshevik Government and the cooperative societies.

On April 12, 1918, the Soviet Government issued its first legislative enactment concerning the cooperative movement. This decree, while leaving the cooperatives independent, authorized the State economic departments to utilize their services for the purchase and distribution of the goods which they required. The cooperatives were also compelled to accept rules laid down by the government for the distribution of commodities, and to supply non-members in their districts. This was followed by another decree, on November 2, 1918, which required that every consumer become a member of a Soviet shop or a cooperative. On November 29th, the counter-revolutionary elements and all members of the middle and employing classes were barred from election to posts of management or authority in the societies. Such measures gave to the Soviets a large measure of control over the activities of the cooperative organizations.

The following year, however, the government finally decided that "In the period of the world revolution and the proletariat's war on capital, the industrial cooperative movement as a proletarian organization must adapt its activities to the necessities of the war. Social conditions are changed by the proletariat's seizure of power,

civil war is at its climax. . . . Industrial cooperation . . . cannot pursue its own 'cooperative' ends as distinct from those of the warring proletariat."[3] It therefore took steps to convert the cooperatives into State institutions.

On March 20, 1919, a decree was issued by the Council of People's Commissars under which all of the cooperative societies were converted into "Consumers' Communes," organizations which supplied the entire public with the necessaries of life. Every worker was compelled to join the consumers' commune of his town, though without the payment of any fee. All forms of cooperation were later amalgamated into one body and made subordinate to the Commissariat for Supply. The agricultural and the craft organizations were made instruments for the collection of supplies; the consumers' cooperatives became distributing agents for the Commissariat. All functions were carried on in accordance with instructions issued by the State economic bodies and without allowing for any independence of action on the part of the cooperative associations. As a department of the Commissariat for Supply, the cooperatives were, like other government agencies, financed by subsidies from the State budget.

When the period of intervention and civil war had ceased, the cooperatives gradually regained the right to make their purchases and sales independently of the State departments. A decree of April 7, 1921, while continuing the cooperative organizations as auxiliaries of the State trading bodies, and retaining the principle of compulsory membership, empowered the societies to undertake trading operations on the open market, as well as to fill State orders. Their transactions were to be conducted (decree of July 26, 1921) "on their own account and at their own risk."[4] Funds were to be accu-

mulated from members' fees, loans, profits, commissions, credits, etc. Finally, on November 17, 1922, their nationalized properties were restored to the cooperatives and subsequent nationalization was forbidden.

A number of additional changes of policy during 1923 and 1924 completed the cycle of cooperative reform. Compulsory membership in the cooperatives was abolished; the old division into consumers', agricultural, craft and credit societies was again introduced; State maintenance was terminated; and the cooperatives were granted independence of organization and operation. It became an unwritten, though generally accepted, principle that, as the consumers' cooperative movement develops, retail trade should become its exclusive province, with the State concentrating its resources and energies upon wholesale operations.

The three main branches of present-day Russian Cooperatives are: Consumers', Agricultural and Handicraft. Each has its local, provincial, and national form of organizations which unite the individual societies. The All-Russian Cooperative Bank, which has 61 branches and 602 correspondents in the Soviet Union and 61 correspondents in the principal cities abroad, was established for the purpose of financing cooperative organizations. The network of cooperative machinery further includes the Insurance Union, the Cooperative Publishing Society and a cooperative housing movement.

The consumers' cooperative organizations are of various types, depending upon the particular needs of the groups which each attempts to serve. The three main types are, Industrial Workers' Cooperatives, Agricultural Workers' Cooperatives and Transport Workers' Cooperatives. In addition, several other groups are organized, as the need for them arises. All groups are

united into district, regional and national Cooperative Unions. At the head of the entire system is Centrosoyus, the organizational and administrative center of the system of consumers' cooperative societies for the whole of the Soviet Union.

Centrosoyus is a federation of all of the Consumers' Cooperatives in the Soviet Union. It unites 259 territorial, national, regional and district unions of consumers' societies divided as follows: 11 territorial unions; 23 national and regional unions; 9 provincial unions; and 216 district unions. These unions in their turn unite 30,000 primary cooperatives of industrial, agricultural and transport workers which together own approximately 56,000 cooperative stores.

The consumers' cooperative movement therefore unites the workers and the peasants of the Union. It embraces all kinds of cooperative societies and societies of transport workers. Centrosoyus has two autonomous sections, that of the workers' cooperation and that of transport cooperation. The combined membership of all branches of the consumers' cooperative movement, in both towns and villages, rose from 9.347 million in 1925 to nearly 11 million at the end of 1926. Of the 1925 membership 3.66 million members were in the town consumers' societies; 5.04 million were in the rural societies; 640 thousand were in the transport cooperatives; and about 7 thousand were organized outside of these three main branches.[5]

In the rural regions only the head of the household joins the cooperatives, so that the members of the rural societies are not individuals but peasant households, each numbering five or six members. Approximately 25 percent of the whole peasant population were therefore members of the consumers' cooperatives in 1925. By

the end of 1926 the percentage was substantially higher.

Among the town dwellers, more than 40 percent are members of the consumers' cooperatives. Seventy-five percent of the members of the trade unions are organized in consumers' cooperative societies. As to the transport cooperative societies, their membership likewise makes up 75 percent of all of the members of the transport workers' trade union. Each member of a society must be a shareholder and pay for at least one share.

The consumers' cooperative organizations of the Soviet Union are at present fulfilling three primary functions: (1) They supply consumers with industrial products. When possible they procure these commodities from the Soviet industries. Some of them, however, they find it necessary to import. (2) They supply the town population with agricultural produce. (3) They collect grain and place it upon the market.

The cooperative unions deal, for the present, almost exclusively in necessities. They aim, on the one hand, to supply the city workers with food and industrial products and, on the other, the rural consumers with manufactured goods. They strive to reduce the prices of all commodities and to establish close bonds between the workers and the peasants on the basis of their common needs as consumers.

In addition to supplying the needs of the population for goods and agricultural produce, Centrosoyus and its entire chain of consumers' cooperatives collect grain for home consumption and for export. A part of the grain collected is sent to the towns; another is exported; still another is turned over to the rural cooperatives in regions where there is a shortage of local grain.

The consumers' cooperatives also conduct foreign trade with different European countries and with Amer-

ica. They export fibres and furs and import manufactured products.

Operations on foreign markets are conducted through branches established by Centrosoyus. Such branches exist in New York, London, Paris, Berlin, Riga, Shanghai and in Persia. The export program for 1925-26 amounted to 21 million roubles. During the first six months of that year 11.5 million roubles worth of goods had already been exported. These sums do not include the operations of the Siberian and Ukrainian central consumers' organizations, which have the right to carry on their activities on the foreign markets independently. They also do not include grain exports, all of which are effected indirectly through the medium of *Exportkhleb,* a joint stock company of which Centrosoyus and other cooperative and economic institutions which collect grain are members. The export figures cited cover only the export of furs and fibres which are handled directly by Centrosoyus.

Goods imported by Centrosoyus during 1924-25 was valued at 27 million roubles and during the first six months of 1925-26 imports reached 25 million roubles. Purchases abroad consist only of articles required by consumers which cannot be purchased for distribution from home producing agencies. Centrosoyus, in addition to its retailing and grain-buying, is a centralized distributing agency for the wholesale trade of the cooperatives. It handles the wholesale transactions for the entire consumers' cooperative system.

Wholesale transactions are handled by Centrosoyus either on a profit or on a commission basis. The textile syndicate, for example, turns over about 70 percent of its entire output for distribution by the consumers' cooperative system. The agreement is drawn by Centro-

soyus on a commission basis. Each of the large unions then participate in selling the commodity through their retail stores. The ratio of the participation of each of them is strictly fixed in advance.

In order to diminish the expenses of the wholesale turnover, a strenuous attempt is made to distribute as large a percentage of commodities as possible directly to the local organizations without bringing them first to central or local warehouses. With certain commodities this policy is proving extremely successful. According to the chairman of Centrosoyus, Mr. Liubinoff, 98.6 percent of its tobacco and matches were sent directly to their places of retail sale. Textile and haberdashery have been sent directly into the field up to as high an average as 90 percent.

Both the wholesale and retail turnover of the consumers' cooperative societies in 1925-26 far exceeded any previous figures. The figures for 1924-25 and 1925-26 are as follows:[6]

TURNOVER OF CONSUMERS' COOPERATIVE SOCIETIES*
(Thousand roubles)

	1924-25	1925-26
Total wholesale trade	1,457,505.6	2,589,798.5
Total retail trade	2,330,223.1	3,978,782.1
Total turnover	3,787,728.7	6,568,580.6

It has been estimated that purchases from the consumers' cooperatives at the present time make up 52 percent of the consumption budget of all workers and employees in the Soviet Union, and that 80 percent of

* The total cooperative turnover on the wholesale and retail market was, of course, greater than these amounts due to the participation of other forms of cooperation. These figures relate solely to the turnover of the consumers' cooperatives.

the workers' expenditure flows into the coffers of the combined forms of cooperative associations. On the average, prices in cooperative stores are 11 percent below prices in private stores.

The industrial activity of the consumers' cooperatives is being distinctly limited and is now restricted to the manufacture of local raw material and food products for local consumption. In the main their industrial work is concentrated in the food industry. They own three thousand enterprises for baking bread and making confectionery products. They also operate several flour mills, a tobacco factory, a factory for tea weighing and packing, a shoe factory and a soap factory. These enterprises, with the exception of the bakeries, do not play an important role in the activities of the consumers' cooperatives. There is a tendency to turn over all industrial organizations to the corresponding State agency and to limit the work of the cooperatives solely to the field of distribution. State industry, on its side, concludes general agreements with the cooperatives to turn over to them for distribution specified portions of their industrial output. In this way the cooperatives are gaining gradual ascendancy among all the retail distributing agencies in the Union. The same holds true, to a lesser degree, for wholesale trade. This is shown in the percentages of wholesale and retail trade from 1923 to 1926:

RETAIL TRADE

	1923-24	1924-25	1925-26	1926-27 (forecast)
State	11.3	19.6	17.5	17.0
Cooperative	30.1	36.1	43.7	47.5
Private	58.6	44.3	38.8	35.5

WHOLESALE TRADE

	1923-24	1924-25	1925-26	1926-27 (forecast)
State	52.1	51.5	38.7	49.0
Cooperative	26.1	39.0	41.9	42.0
Private	21.8	9.5	9.4	9.0

These figures related to all kinds of goods, even those not handled in the stocks of the consumers' cooperatives. Until they accumulate larger capital, the societies are largely specializing in necessities, and their percentage of the total turnover in these fields is much greater than the above figures would suggest. It reaches, for example, 60 percent for the total turnover of textiles; 55 percent for leather; and 80 percent for salt, sugar and kerosene. For all necessities, the cooperatives average 50 percent of the turnover.

Despite the low retail prices, as compared with the private market, at which the cooperatives sell their wares, their financial condition is improving. Their resources increased from 281 million roubles on October 1, 1925, to 425 million roubles on October 1, 1926. During the same period their credit resources grew from 660 million roubles to 850 million roubles.[7] The capital of the movement consists of the share contributions of the individual members and of the regular yearly profits. In September, 1926, each shareholder in the towns had paid in an average of 4 roubles 75 kopeks, and each in the villages 3 roubles. The net profit amounts to 2 percent of the yearly turnover.

But the activities of the consumers' cooperative movement are not confined to commerce. Their cultural role is also far-reaching and they have undertaken extensive work in the field of cooperative education.

At the headquarters of Centrosoyus there are 58 travelling instructors, not including special instructors of the Organization Department.* In addition, the individual cooperative unions have 2,336 instructors. Throughout the country there are seventy-five cooperative educational institutions attended by approximately 9,500 students. In all clubs there are cooperative circles, cooperative corners and groups of correspondents. Many of the cooperative societies publish cooperative papers, often in the form of wall newspapers. Particular emphasis is laid upon the training of skilled cooperative functionaries from among the actual workers at the bench and upon attracting women workers into cooperative activity.

The consumers' cooperatives also have a special cooperative press. They publish a central organ of the movement called *The Cooperative Life,* and many local newspapers, magazines, periodicals, bulletins, etc. Large bookstores have been opened in the towns and there is a tendency to organize "book corners" in the rural cooperative shops where books upon political, economic and cooperative subjects are sold cheaply.

Expenses for educational purposes reach 11.5 percent of the budget of the central organization and an additional 1 to 2 percent is added in the smaller units. Approximately 20 million roubles are taken each year from the profits earned through trade and devoted to education and culture.

The consumers' cooperatives are a growing factor in both the educational advance of the Soviet Union and in the economic struggle against private capital. They have succeeded in bringing large sections of the popula-

* In November, 1926.

tion into the work of regulating trade exchange and socializing the national economy.

The next group of cooperatives, in order of importance, is the agricultural branch. In its present form, the system of agricultural cooperatives came into being only after 1921 when they were granted the right to organize anew and to work independently of other branches of the cooperative movement. Their successful development is particularly important in view of the paramount place which agriculture holds in the economic life of the Soviet Union and of the overwhelming majority of the country's population who are engaged in agricultural enterprises.

The basic aims of the agricultural cooperative movement are the development of the productive forces of the rural regions and the collectivization of peasant farming. Their activities consist largely of marketing the goods produced by their members; supplying the cooperating peasant population with the means of improving and increasing agricultural production, such as agricultural machinery, implements, fertilizers, building materials, pest-destroying chemicals, etc.; and in the introduction of new agricultural methods. They also help to build up collective farms and peasant communes.

At the center of the organizations of agricultural cooperation is *Selskosoyuz*, the All-Russian Union of Agricultural Cooperatives. The cooperatives of the Ukrainian Republic, however, do not form a part of the Selskosoyuz, the Ukraine having a separately organized Central Agricultural Union of its own. The Unions of the other autonomous republics are for the most part members of the Selskosoyuz, although in all of them

there are a number of unamalgamated, "free lance" organizations.

Selskosoyuz represents the system of agricultural cooperatives in questions of general policy and in the purchase of general agricultural requirements. For the fulfillment of specialized functions, however, it organizes special sections which concentrate their activities upon producing, marketing and improving a single product or, when necessary, a few kindred products. At present there are ten such special branches, the *Lnocenter,* uniting the flax and hemp growers; the *Maslocenter,* which amalgamates all the dairy cooperatives; the *Plodovinsoyuz* of fruit, vegetable and wine producers; the *Soyuzkartofel* of potato growers; the *Tobakosyuz* of tobacco cooperatives; the *Centrochlebsoyuz* for grains, fodder and oil seeds; the *Vsekoles* of timber cooperatives; the *Ptitzevodsoyuz* of poultry breeding cooperatives; the *Koopstrakhsoyuz,* all union cooperative insurance; and the *Knigozoyuz,* or cooperative publishing house. As cooperatives gain footing in any given agricultural field they are formed into a specialized center. Nearly all of the members of these new organizations, however, remain a part of the central society of agricultural cooperatives, Selskosoyuz.

Besides the central organizations, there are autonomous cooperatives in all of the republics of the union. Together with the societies in the Ukrainian Republic, which are not members of Selskosoyuz, the entire system had 40,200 cooperative societies on October 1, 1926, with a membership of 7.138 million. As it is customary in nearly all cases for only the head of the household to join the society, about 30 percent of the peasant households of the entire union are thus united. In certain specialized regions, such as the dairy and tobacco sec-

tions, the number reaches 60 and even 80 percent of the entire peasant population.

Over 20 percent of the agricultural machinery which is distributed in the Soviet Union goes through the supply department of the agricultural cooperatives. The societies market 16.5 percent of the agricultural produce. In certain branches of agriculture, the marketing role fulfilled by the system considerably exceeds this figure. Thus, 90 percent of the total production of butter; 42 percent of raw starch; 27 percent of flax, and 25 percent of the grain are marketed through the cooperative system.

In addition to placing upon the market agricultural produce in its raw form, the cooperatives are beginning to develop their own productive units and to place upon the market certain of their produce in forms ready for consumption. Butter factories, works for utilizing flax, etc., now number 17,000 enterprises, which employ 50,000 workers and have a total yearly output which amounts to 50 million roubles.[8]

The following figures show the steady growth of the trading activities of the agricultural cooperatives:[9]

Year	*Million roubles*
1923-24	679
1924-25	1,178
1925-26	2,122

The agricultural cooperatives also engage in the work of building up collective farms and increasing their role in agricultural economy. In 1925 such farms numbered 21,923. They were tilled by 1,085,456 persons and covered over 8 million acres.[10] The societies utilize these farms both for productive purposes and as centers of

agricultural education for the surrounding peasant population. There are three forms of agricultural collective bodies with varied degrees of socialized labor and capital. The "Communes" are completely socialized and no member may withdraw his share of land, implements, etc. The "artels" are partially socialized. While they work collectively, members reserve the right to withdraw their portions of land and implements and return to individual tilling. "Tillage societies" own machinery collectively and use it together upon the tillage of individual lands.

Widespread agronomic educational work is conducted through the agricultural cooperative societies. Lectures and courses are organized and magazines, papers, bulletins, etc., are published. Various special schools, which carry on part of the work in this field, at present employ over 1,500 scientific agricultural experts.

The agricultural cooperatives also set for themselves the task of industrializing and mechanizing the processes of agricultural production. They carry on an intensive agitation against existing methods of work and in favor of modern methods of tillage. To popularize the scientific and mechanical processes of production special instructors are provided for the local societies.

As a part of the role they fill in the agronomic field of agriculture, the cooperative societies possessed, in 1925, 4,000 stations for seed selection; 8,000 machine-renting stations which rented out 35,000 tractors and other machines and agricultural implements; 2,500 breeding stations; 4,000 grain sifting centers; an experimental truck garden; and a fruit garden station. The Plodovinsoyuz distributes model cuttings and vegetable and flower seeds. It also organizes nurseries.

Agricultural cooperation has had a tremendous

growth during the past few years. It has taken hold in the rural regions and has come to occupy an important place in the agricultural economy of the Union. Its greatest weakness thus far is insufficient capital. The funds of the system amount to 110 million roubles, of which 22 million roubles consist of share capital. This is not sufficient for a turnover of more than two billion roubles. They receive governmental help in the form of long term loans through the State banking institutions; lower taxes; transportation privileges; and other special forms of State aid.

For the purpose of organizing the production of the peasant and artisan industries, the Soviet Government is also giving encouragement to the formation of handicraft cooperatives. These organizations embrace the small producers in the rural regions and the towns, the *Kustars* (small home industries), artisans, and others. Handicraft cooperatives seek to place the work of their members on a collective basis, unite their workers and draw them into the system of planned Socialist construction.

Prior to the outbreak of the Russian Revolution, the handicraft worker and artisan remained completely unorganized. The government of the Czar forestalled all possibilities of organization and the private "buyer" was able to dominate the industry. It is the policy of the Soviet regime to encourage and assist both the development of the handicraft industry and the organization of the individuals engaged in it into handicraft cooperative societies.

On October 1, 1926, there were 12,000 handicraft cooperative societies in the Soviet Union which embraced over 500,000 members. These were headed by 275 primary unions, which in turn belonged to central federa-

tions organized in each of the constituent republics.

The handicraft cooperative unions supply their members with raw materials with which to carry on their work. They then market the products, in large part through the medium of the State selling agencies and the consumers' cooperative societies. The government renders every possible assistance to them in their work by tax reductions, facilitation of purchases of raw materials from State organs and credit operations.

Of late there has been a development of handicraft cooperation in its highest form—the organization of social workshops in which groups of workers labor cooperatively. At the present time there are 500 such shops in the handicraft cooperative system. Many of them operate plants leased from State industry and are utilizing technical improvements such as electrification, mechanization, etc.

The handicraft cooperatives publish a monthly magazine, *The Handicraft Cooperative Herald*, and a weekly newspaper, *Handicraft and Artel*. They also publish books and pamphlets upon the economics of handicraft production and cooperation. They carry on struggles against illiteracy in the villages, organize clubs and libraries for handicraft workers, arrange courses and lectures and conduct other cultural activities.

Cooperatives are playing an important role in the socialization of the Soviet Union. They are the largest and most steadily growing factor in the field of goods distribution. They are an active force in socializing peasant and artisan labor. Through their educational work they are spreading the idea of socialization. To date they have proved themselves one of the most valuable of the Soviet agencies in building a Socialist order.

CHAPTER XI

THE POSITION AND ORGANIZATION OF LABOR

The total number of persons who work for wages or salaries in the Soviet Union is steadily growing. On April 1, 1925, the total was 6,035,300, not including members of the working communes. On April 1, 1926, the total number of workers in the Union had grown to 7,700,600, an increase of over 27.5 percent. By July 1, 1926 the number had risen to above 10 million.

The rights of these working people, and their relations to those who are directly responsible for the administration of the economic machine, are embodied in and regulated by the "Labor Code," which is an organic part of the fundamental law of the Soviet State. The Code of Labor Laws represents the minimum standard of labor conditions. The code regulates such things as the duration of the working day, the manner of hiring and discharging workers, the employment of women and minors, vacations, etc. The conditions set by the code are applicable to every worker in the Soviet Union. Its very first article states that "The provisions of the code of labor law apply to all wage workers, and are binding on all works and factories, institutions and economic undertakings (State and military undertakings, public and private undertakings, and undertakings employing house-workers) and on all persons employing wage workers for remuneration." Thus the provisions

of the code extend equally to work carried on in factories and offices, to domestic servants and to agricultural laborers. It makes no difference whether the work be done for a Soviet institution or for a private employer.

Russian workers protect themselves economically and advance their interests through the trade unions. The trade unionists are privileged persons. They enjoy special privileges as regards housing for their families and their union organizations; they are given special facilities for travel and for amusement; their children have prior rights to the facilities of the educational system from the lowest elementary school to the highest bodies of learning. The trade unions and their members occupy the same privileged places in the Soviet State that employers' associations occupy in the western world. The trade union card is a sort of badge of industrial citizenship, testifying to the fact that its holder is a socially useful member of the community.

The trade unions are the lawful representatives of the workers in social, political and economic life.[1] All of the employers of labor, whether State or private, are required to recognize them and to negotiate with them.

The Soviet State and the trade unions are both organized for the furtherance of the working class interests. This is recognized in the fundamental State law, which lays down the principle that "The whole of the State organs are in duty bound to further the objects of the Trade Union (Industrial) federations and their associated bodies."[2] The State is also required by law to provide for the trade unions, "completely furnished premises for the establishment of 'labor palaces,' 'Trade Union Buildings,' etc., and to accord them advantageous terms for the use of the post office, telegraph, telephone, railways, waterways, etc."[3]

The Soviet trade unions are based upon the principle of voluntary membership in industrial unions. All of the employees of a given factory or plant, regardless of their trade, are eligible to join a single union. The principle of "one factory, one union" holds an accepted place in the Russian system.

Soviet workers have abandoned craft organization. The workers on American railroads, for example, are organized into 16 separate and autonomous craft unions. Each of these negotiates separately with the employers, without regard for the interests of the other groups of workers, and many of them always remain at work when the others go out on strike. The workers of a Russian railway, on the other hand, road and shop, are members of one national industrial union. This union includes all of the conductors, locomotive engineers, and all of those who work for the railways, whether in the blacksmith shop, the foundry, the wheel shop, the office, or the power plant. A general shop committee connects all of these various branches. In a university, professors and scrub-women may all join the Educational Workers' Union.

The basic unit through which the trade union members express their decisions and maintain their rights is the factory council. This council maintains the closest possible contact with the masses of the workers, whose interests it represents not only in labor questions but also in the sphere of the social condition of the workers. The factory council is elected at general meetings of the workers and holds office for a period of six months.

The members of the factory council are released from all work except their duties in connection with their office. Their wages are continued as before election, and they lose none of their professional standing for the

period in which they serve in this capacity.[4] The factories or works are required to furnish the means of maintaining the council and to put at its disposal the necessary office facilities and premises.

The factory councils are directly responsible for their activities to the general meetings of the workers. In the larger factories special delegates are elected to keep the workers informed of all decisions of the factory councils. Meetings of these special delegates are called twice monthly at which the wishes of the workers are formulated and communicated to the councils. The orders and decisions of delegate meetings are binding upon the factory councils.

The factory councils devote their chief attention to three main fields: (1) Protection of the economic interests of the workers whom they immediately represent; (2) Improvement of the cultural level of the workers; and (3) The improvement of production and technique in the interests of the entire Soviet Union. The councils, therefore, have a twofold interest—that of an individual body of workers and that of the entire State.

In addition to their factory units, the trade unions are organized into city central bodies and into provincial trade union councils. The trade union movement is in turn united as a whole into the All-Union Central Council of Trade Unions, which contains representatives from all of the central trade union committees.

With the introduction of the New Economic Policy, the village and home craft workers were dropped from affiliation with the unions and membership fell from 8.5 million in July, 1921, to 4.5 million in October, 1922. Almost immediately thereafter it began to rise. Collective voluntary membership was introduced in 1923, then individual membership and individual pay-

ment of dues. The membership lists, however, continued to enlarge.

In January, 1924, there were 5.646 million members enrolled in the Soviet trade unions. By April 1st, of the same year, there were 5,822,682. On April 1, 1925, this figure rose to 6,950,484 an increase of 21 percent within a single year. This growth continued during the ensuing year. On April 1, 1926, the membership had risen to 8,768,200, i. e., an increase of 26.2 percent.* On July 1, 1926 the membership totalled above 9 million.[5]

An analysis of trade union membership on April 1, 1926 made by M. Tomsky, Chairman of the All Russian Central Council of Trade Unions, at the Fifteenth Conference of the Communist Party, follows:[6]

Group	Percent of Total Trade Union Membership
Industrial Workers	36.5
Railway and Transport	13.1
Soviet and Trade Employees	12.2
Agricultural and Forest Workers	10.5
Educational Workers	7.8
Building Trades	6.1
Medical and Public Health	5.0
Public Food Supply and Municipal Employees	4.8
Seamen	1.8
Post and Telegraph	1.3
Art Workers	.9
	100.0

*This figure exceeds by a million the figure cited above as being the total number of workers working in factories and institutions on April 1, 1926. The

One remarkable feature of the membership of the Russian trade union movement, which is characteristic only of the trade unions in the Soviet Union, is the degree to which the rank and file workers are interested in union affairs and participate actively in the work of the organizations. In January, 1926, there were 56,000 factory councils, with a membership of 226,000. The number of paid committee members (exempted from all other work) was 28,000 and the number of section delegates 800,000. Dues collectors are not included in these figures, although they, too, are active functionaries in the work of the unions.

In all, 1,738,000 trade union members were taking part in the subordinate work of the trade union movement at the beginning of 1926. These small officers are constantly growing in number. Between 1925 and 1926 the membership on factory councils alone increased by more than 50 percent. In the Soviet Union the trade union apparatus is built up from the bottom upon the firm foundation of mass activity. Trade union work is not the monopoly of a few bureaucratic officials as it is in most other countries.

The provisions of a collective contract or agreement between workers and employers are not valid if the standards of labor conditions embodied in the contract fall below the standard fixed by the labor code. Articles 19 and 28 of the Code of Labor Laws provide that "Stipulations of an agreement, should these involve a worsening of working conditions as compared with the conditions based on the code of labor laws and other legally valid enactments, are invalid." For the enforce-

discrepancy is due to the number of unemployed who, of course, remain members of the trade unions, and to the fact that numbers of seasonal workers and agricultural workers are not included in the statistics numbering regular workers. Large numbers of workers who have gone into educational institutions as students also retain their trade union standing.

ment of these conditions, the code provides that there shall be specially appointed labor inspectors.

The basis of the relation between the workers and the management of an establishment in the Soviet Union are laid down in a "collective agreement" made between the management and the trade union. This collective agreement deals with the wage scale, the conditions of work, the settlement of disputes, etc. The contracts may be of two types,—central and local. In the cases of the large national trusts, whose activities extend over the whole country, the collective contract is drawn up between the economic authorities and the central committee of the national union. Factory committees then work out the details and local applications. The local agreements are concluded between the local trade union bodies and the local economic authorities.

The trade union officials are required to heed in detail the wishes of the workers whom they represent. Before the collective agreement is signed in behalf of the trade union, every point involved must previously be discussed and accepted by a general meeting of the workers and employees affected. Once concluded, the agreement may not be altered by either party without the consent of the other.

To support the work of their trade union bodies, the workers pay as dues 2 percent of their wages, which is the standard rate for all Russian trade unions. The condition of trade union finances is constantly improving. During the first six months of 1925 the local trade union organizations sent to their central committees the sum of 4,492,329 roubles. The bank deposits of 23 central committees amounted, on June 1, 1925, to 2.5 million roubles. On the same date in 1926 this amount had increased to 5.25 million roubles.[7]

The right to strike either against private employers or State enterprises has been maintained by the Russian trade union movement. In spite of the close connection which exists between the State and the trade unions, the State enterprises, which have been placed upon a commercial basis, have entered into competition with private concerns and there always exists the possibility that they may attempt to meet this competition at the expense of labor. There is, too, the danger of bureaucratic misapplications of the State's labor policy. Therefore, writes a prominent Russian trade unionist, "in the period of new economic policy . . . we shall resort to strikes, to boycotts, and to all methods of direct action which the international labor movement has created, every time that the interests of the workers seem to require their application."[8]

Any strike called against a State organ, however, is not directed against the State as such but against a particular branch of the State apparatus which has deviated from the general policy of the State. The State, therefore, will not take any action to break up the strike, will not prevent strikers from interfering with strikebreakers, will not permit the use of the police to protect the interests of the employer, private or State. A strike against a State establishment in the Soviet Union, therefore, presents the anomalous phenomenon of State sympathy being upon the side of the strikers and against one of its own autonomous branches.

The strike is, accordingly, a weapon which is resorted to only in extreme cases after all other forms of pressure have failed. The strike is for the most part merely a weapon of warning in the hands of the workers. During the past few years there have been very few strikes,

and these were in the small establishments and involved only a small number of workers.

For the settlement of any disputes which may arise between the workers and the management there exists a very elaborate machinery of arbitration and conciliation. A special order issued by the Council of People's Commissars provides for the establishment of "Conciliation boards and arbitration courts . . . in connection with the P. L. C. [People's Labor Commissariat] and its local administrative bodies for the settlement of disputes and controversies arising out of the employment of labor."[9]

If differences cannot be settled at the place of work between the representatives of the workers and the management, they may, if both parties agree, be submitted to an arbitration committee. This committee has no permanent existence, being set up separately for each case. Both parties are represented equally and a chairman, who has, however, no vote, is appointed by the Commissariat for Labor. This committee may call witnesses and experts. A majority vote is required for a decision.

In the event of a deadlock upon the arbitration committee, which, incidentally, is a rare occurrence, the dispute may be passed on to a Board of Arbitration. Boards of Arbitration, like Arbitration Committees, are not permanent bodies. The chairman is agreed upon by the conflicting parties and he possesses the right of decision only when the disputing parties fail to come to an agreement without his vote. If a chairman cannot be agreed upon by the conflicting parties, the choice is made by the Commissariat for Labor.

Both parties having agreed to the submission of a

conflict to arbitration, a decision is final. Both are required by law to comply with all of the provisions of such a decision.

Among the most important group of cases which come before the arbitration bodies, are those involving discharges or transfers of workers. It is a fixed principle that no employee may be discharged without the concurrence of the trade union. If the reasons be "reduction of staff" no objection will ordinarily be made by the union. Occasionally, however, the union will designate retention of the employee in question and the discharge, instead, of another whose financial circumstances render him better able to face a period of idleness; or because he has no dependents, whereas the original worker designated for discharge has one or more; etc.

If, however, the discharge is on the grounds of breach of industrial discipline, incompetence, "soldiering," etc., the charge must be proved by the employer before a committee. If the breach of industrial discipline be the alleged cause of discharge, it must be proven that the worker's action was of such a nature that it interfered with production. The union has an equal right to request the removal of a foreman or a manager. In this event the same procedure is required.

In hiring or discharging workers, union members in all cases receive preference. Every new worker has a two week trial period. If, after that period, he is retained at work, the assumption is that he has qualified for the position. In any subsequent attempt to remove him on the grounds of incompetence, the burden of proof is upon the management.

The Code of Labor Law places upon the employer full penal responsibility for violations of its provisions.

Workers, on the other hand, are not penally responsible unless they are serving as representatives of the employer, in which case they may be held penally responsible. If, for example, a labor inspector finds that illegal overtime has been worked in a factory, he is required to hold the employer or the management penally responsible. He cannot press action against the workers.

The wages of workers are fixed by the collective contract, where a group of workers is involved, or by individual work contracts. By the beginning of 1926, 85 percent of all persons employed were working under terms drawn up on the basis of collective contracts.[10] The contracting parties may agree upon the amount of wages to be paid. Their freedom in fixing wages, however, is limited by Article 59 of the labor code which provides that "the amount of the working wage may not be lower than the obligatory wage level prescribed by the competent State organs for the corresponding categories of work."

There are, in all, seventeen wage categories with a wage tariff set for each in accordance with the qualifications of the workers placed in each group and the nature of their work. Wages must be paid at least once every two weeks, while payment for temporary work must be made immediately after the work has been completed. Should a worker be performing several tasks, the wages paid to him for the entire work must be in accordance with the tariff set for the most highly paid grade of work which he is performing. Between October and December, 1926, the average monthly wage for all forms of industry was 58 roubles and 49 kopecks.[11] In 1925-26 the monthly wage averaged under 52 roubles.

The money wage of the Russian worker, however, is

intended to cover only a small section of those things for which workers in other countries are required to pay. His wages cover only actual necessities. All other requirements such as insurance, medical and dental attention, education of his family, recreation, travelling, vacations, etc., accrue to him either in whole or in large part in the form of benefits supplied by the trade unions, the cooperatives or the State.

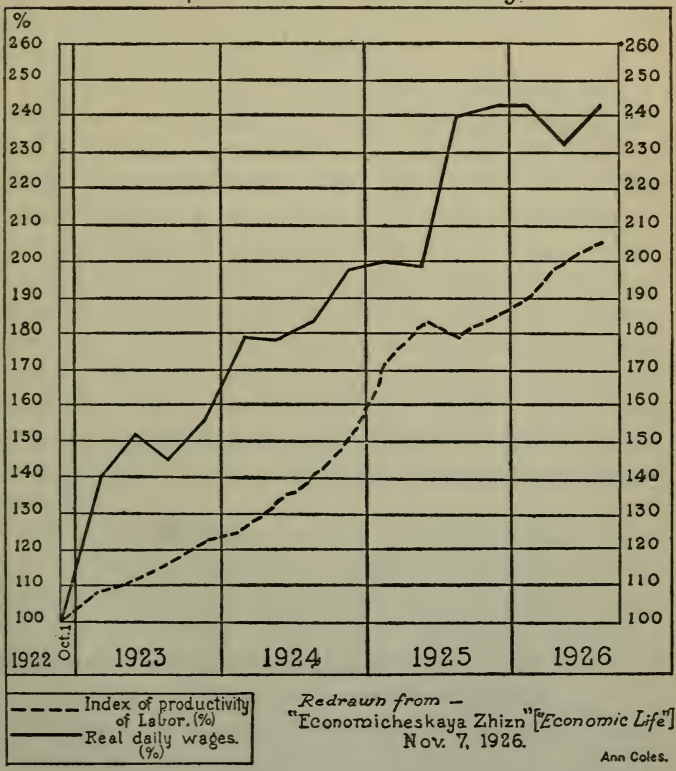
The wage policy which has been in force since the adoption of the New Economic Policy definitely provides for participation of the workers in the fruits of economic revival. Wages must "be increased directly and immediately with an increase in production."[12] There has been, as a matter of fact, a tendency for wages to increase slightly faster than productivity. Between October, 1922, and November, 1926, both showed an uninterrupted improvement. The productivity of labor during this period increased by 203.9 percent; wages of the workers were advanced by 242.2 percent.[13]

The twelve and fourteen hour day of pre-revolutionary Russia was abolished immediately upon the assumption of power by the Soviets. A decree fixing the eight hour day was published upon the third day of the existence of the Soviet regime.

At the present time the Soviet law fixes eight hours for day workers and seven hours for night workers as the maximum working day for adults. On Saturdays and on the eve of holidays the working day is reduced by two hours. For persons engaged in office and intellectual work, six hours by day or five hours by night is fixed by law as the maximum working day. The law further requires that every person have an uninterrupted period of weekly rest of not less than 42 hours.

Workers engaged in heavy, dangerous, or under-

Dynamics of Real Wages and Productivity of Labor in Industry



Redrawn from —
"Economicheskaya Zhizn" ["*Economic Life*"]
Nov. 7, 1926.

Ann Coles.

ground occupations also work a maximum of six hours by day or five hours at night. Thus, coal miners, for example, work only six hours, including winding time and "In abnormal working places, which include wet places and bad roofs and floors, or any other disadvantage, the men work less hours, down to three in some instances, and are paid wages not less than when working under normal conditions."[14]

Overtime is not allowed, and only under very special conditions are exceptions to this principle permitted. Such exceptional conditions are specifically defined in Article 104 of the labor code. Should they exist, the extra work may be performed only with the consent of the local disputes committee of the trade union, as well as with the approval of the labor inspector and the agreement of the workers themselves. Article 106 stipulates that "The numbers of hours overtime for each employee shall not exceed 120 hours a year; the time spent in overtime work shall not exceed four hours within two consecutive days." Persons under 18 years of age may not work overtime under any circumstances whatever.

Work is not allowed on any of the following holidays: January 1, January 22, March 12, March 18, May 1 and November 7. In addition to these general holidays, the local labor organizations fix special holidays, not exceeding ten a year, which are made to fit with the conditions prevailing in each individual locality.

For all workers who have been working at least 5½ months, the law ensures an annual vacation of not less than two weeks, with full pay. Persons engaged in dangerous, heavy or underground work and persons who have not yet attained the age of 18 years are given a minimum vacation period of four weeks. In separate

instances, provisions are frequently made in the collective agreements for improvements over these minimum conditions.

Women engaged in industry receive the same pay as men who perform equal work. In all factories and offices care is exercised to see that a part of all vacancies which occur are filled by women workers, in order that women may not be crowded out by men. In order to secure the greatest possible participation of women in industry, special commissions have been appointed by the Commissariat for Labor for studying the work of women and the conditions under which they can best perform it. During 1926, the number of women in industry was 28.4 percent of the total number of workers.

The Code of Labor Laws prohibits the employment of women in underground work, or in particularly heavy or unhealthy work. They may not be employed at night, although exceptions may be made to this law, when necessary, by the Commissariat for Labor, in agreement with the trade unions. Without exception, however, night work and overtime are prohibited for expectant and nursing mothers.

In order to make social and productive work compatible with maternity, women workers enjoy various advantages during pregnancy and after the birth of the child. For two months prior to their confinement and two months after, entire leave from work is granted, with full pay. Mental workers receive six weeks leave before and six weeks after the birth of the child.

Upon the birth of her child, the mother receives a lump sum, in addition to her regular pay while on leave, usually amounting to half of her average monthly wage. If she chooses to return to work upon the expiration of her leave, the child is cared for without charge,

during working hours, at nurseries which are attached to all of the larger industrial establishments. During the first nine months of the child's life the mother receives a special nursing allowance amounting to one eighth of her wage. To visit the *crèche* for the purpose of nursing her child, the mother is allowed one half-hour interval in the forenoon and one half-hour in the afternoon. She thus visits the child three times during the course of the day, including the dinner hour. These breaks are included in the working hours and paid for as such.

As a general rule, work is not permitted for children under 16 years of age. Upon the special application of the persons concerned, however, labor inspectors may issue permits for the admission to employment of children between fourteen and sixteen years of age, in the following cases; (a) orphans, (b) children who are the sole support of relatives incapable of work, and (c) specially needy cases. A four hour working day is the maximum for this class of workers.

Young persons between sixteen and eighteen years of age may work not over six hours per day. Payment is made for the reduced working day for minors at the same rate as for those adults engaged for the full working day in the same class of work. Young persons doing piece work are paid first at the same piece rates as adult employees and, in addition, are paid for two hours at the scheduled rate applying to their grade of work.[15]

Juveniles are not permitted to do any overtime or night work whatever. Further, labor inspectors are instructed to see that they are not employed under conditions which "tends on account of its monotony to have a deadening effect on their minds."

Young persons are employed under conditions which increase their skill and provide them with vocational training. Such training is received either in special schools for apprentices or under the individual guidance of skilled workers.

Care is taken that the developing organisms of the young workers do not suffer as a result of excessive work. For this purpose they are legally compelled to receive medical examinations at least once annually. In addition to the prohibition of overtime and night work, there are 139 branches of industry in which, for reasons of health, the work of juveniles is entirely prohibited. Besides the regular annual vacation which is received by all workers, the juvenile workers receive an additional two weeks each year.

The Soviet Union also has an elaborate system of labor protection legislation which has for its purpose the protection of the health and personality of every worker. In addition to the provisions concerning hours of work, overtime, vacations, etc., workers receive many additional advantages. In the event of sickness, the vacation period may be extended to two months or more, with sick benefit amounting to the regular working wage, which is paid out of the health insurance fund. The places of workers absent from work because of sickness must be held open for them at least two months.

Workers requiring special health treatment of any kind receive this either free, or at greatly reduced rates, through their trade unions. Where working conditions make it necessary or advisable, employers are obliged, in special cases, to supply the workers with special clothing, footwear, safety appliances, supplementary holidays, special food, etc.

No industrial establishment may operate without the previous sanction of the labor protection inspector concerning safety precautions and of the organs superintending health and sanitary conditions. The management is legally required to take every possible precaution to prevent accidents.

In 1925 the Commissariat for Labor and the Supreme Economic Council issued regulations prohibiting the manufacture of machinery which is not equipped with safety appliances for the prevention of accidents. In the same manner, purchases of machinery abroad without suitable safety appliances are no longer permitted. The country is not, however, in a position to scrap its old machinery, much of which is defective and without adequate safety appliances. The Commissar for Labor told the Seventh All-Russian Congress of Trade Unions that from July, 1925 to June, 1926 the number of industrial accidents rose from 310 to 410 per 10,000 working days.[16]

In the Soviet Union the direct administration of industry is in the hands of the Supreme Economic Council which, through its scientists and technical experts, is best able to conduct it efficiently and smoothly. But the workers, through their trade unions, nevertheless play a very active part in the management of industry. Trade union representatives participate in the work of every organ connected with industry and the unions have representatives in all of the regulating and planning organs.

Before the Supreme Economic Council appoints the director of a plant, the trade union must sanction the nominee. Through their factory committee the workers may make complaints or suggestions which, if valid, are suggested to the management. If no action is forthcom-

ing, the union may carry the matter to its superior organs, but usually disputes are settled on the spot.

Representatives of the trade union are called to every meeting of the technical staff and they participate in all technical discussions. The factory committees have free access to the books and records of their establishments; the factory management submits regular reports to them; and they are also given copies of the reports sent to the State authorities.

In addition, the managers and department heads of all industrial establishments give personal reports at the trade union meetings. In these they acquaint the workers and employees with the progress which the plant is making and the prospects for the future. At these meetings the management hears directly from the workers all grievances and suggestions.

Trade union representatives also sit in all of the councils of the Soviet State. Their influence is so direct that not a single State law or government decree which in any way affects the well-being of labor can be issued without the concurrence of the Central Council of Trade Unions.

In appointing the Central Executive Committee of the Union, the All-Union Congress of Soviets always includes a definite number of trade union representatives, in order that the workers may be represented in the highest political organ of the Union. In the Council of Labor and Defense there is a representative of the All-Union Council of Trade Unions, with full voting powers. In appointing the members of the Supreme Economic Council a number of the appointments are made from trade union workers who, however, continue their work in the trade union movement even after their appointment to the Supreme Economic Council.

In the field of labor regulation the trade unions are actually and judicially supreme. The State apparatus for the regulation of labor matters in the Soviet Union is organized and administered by the Commissariat for Labor. While this commissariat is a State organ, the nomination for the post of Commissar for Labor is made by the All-Union Congress of Trade Unions. The appointment of the nominee of this Congress is obligatory upon the State. The most responsible other officials of the Commissariat for Labor are also appointed upon nomination by the trade union movement. Not a single labor regulation or law, save in matters of ordinary routine, is issued without the consent of the All-Union Congress of Trade Unions.

In addition to these features of worker-participation in the administration and management of industry, the workers exercise a direct influence upon their local industrial units through "conferences on production." These conferences, more than any other single factor, illustrate the degree to which the workers regard the industries as their own and their direct interest in the economic well-being of the Soviet Union.

The workers of each plant meet periodically in conferences on production. Each worker presents to the conference such small items of possible improvement in method and technique as have occurred to him from his place at the factory bench. The suggestion can relate to the work of the entire plant or to his particular link in the process of production. The workers also discuss methods of improving the economic structure.

Through these conferences the working class in the Soviet Union participates directly in the work of Socialist construction. The workers have taken up this aspect of their work with enthusiasm and in the metal

workers' union, for example, have made suggestions which have put the entire metal industry of the Union upon a new and improved basis.

The conferences on production also afford an outlet of expression for the working class and no worker warranting promotion to a higher rank need suffer from lack of opportunity to give expression to his ideas. As a matter of fact, the president of the Central Council of Trade Unions, M. Tomsky, has testified to the fact that in recent years the conferences on production have been the means of raising thousands of workers to posts of greater responsibility, such as to head-workers and to foremen of groups.

The degree to which the workers of the Soviet Union participate in the management and administration of Soviet industries, through representation upon all of the higher bodies and their direct participation through production conferences, has instilled in them an attitude toward their jobs not found in any other country in the world. This fact is forcibly impressed upon anybody who visits a workplace in the Soviet Union and talks with the workers. As a delegation of English women trade unionists who visited the Soviet Union in 1925 wrote upon their return to England; "A fact that struck the delegation most forcibly during their whole stay in Russia, was the way in which the workers, both men and women, looked upon the factories, the shops, the museums and art treasures, and on the country as a whole, as really belonging to them. An ordinary rank and file worker . . . would often point with pride to the improvements made during the last couple of years, and to the increase in output; or walking along the street, he or she would point out a newly repaired or constructed factory, recently built house, or a new line of

buses or tramways as one of their own hard-won achievements." [17]

In addition to purely material advantages, the trade union movement is the open gateway to educational and cultural advancement for the workers. At the outbreak of the Revolution, a very large majority of the Russian working class was entirely illiterate. Even as lately as 1921, the following percentages of the members of the leading trade unions were still illiterate:[18] food workers, 65 percent; municipal workers, 50 percent; woodworkers, 50 percent; agricultural workers, 80 percent; and miners, 50 percent.

The trade union movement has been at work remedying this state of affairs. Early in 1926 it was able to report the following results:[19] among the metal workers only 2 percent of the workers were illiterate; chemical workers, 6 percent; agricultural workers, 18.4 percent; building trades workers, 5 percent; woodworkers, 6.5 percent; leather workers, 6.3 percent; transport workers, 3.9 percent; municipal workers, 4 percent; seamen, 4 percent; while the miners reported that "The abolition of illiteracy can be regarded as complete." One must keep in mind the conditions prevailing among the working class of pre-war Russia to appreciate the full significance of this five-year achievement.

The educational and cultural activities of the trade union movement are carried on in many ways. The unions organize special schools for illiterates and vocational schools which are operated in conjunction with the management. They establish special trade union libraries, organize lectures and excursions and provide special scholarships for their members to higher educational institutions. On the recreational side, the unions organize clubs, dramatics, sports, etc. Physical culture

among trade unionists is proving particularly popular. Between 1924 and 1926 the number of members in the physical culture groups grew from 150,000 to 330,000.[20] The expenses involved in these activities are borne jointly by the unions and the management, plus nominal dues payments by the workers.

The educational and social work in the individual factories is carried on through specially organized "workers' clubs." Special "Red Corners" for the dissemination of literature upon political and economic subjects are also organized. Many of the smaller factories, however, where it is not expedient to set up a separate club, have only a Red Corner.

The club privileges are one of the main advantages of trade union membership. Through them there are distributed large numbers of free tickets to the theatres and picture-houses and many others are sold at reduced rates. They also have circles for dramatics, literature, music, art, sport, chess, study circles, reading rooms and the like. All of the clubs have good libraries. On January 1, 1926 there were 3,418 such clubs in the Soviet Union, with 1.2 million members. On the same date there were 8,085 libraries whose readers numbered more than 2.2 million persons.[21] In January, 1926, there were, in addition, 21,700 Red Corners.[22]

In order that all of the minimum provisions of the Code of Labor Laws, as well as other labor decrees and orders, may be put into actual force, special labor inspectors are appointed who devote full time to tours of inspection among the factories. The inspectors are paid by the State but elected by inter-councils of the trade unions. By 1926, 75 percent of the inspectors had been elected from the ranks of ordinary workers; and 5.8 percent of them were women.

The law provides that "consent shall not be given by the labor inspector on his own authority to any departures from the current standards for labor . . . [Where] there is a genuine necessity for the departure . . .[he] shall obtain the opinion of the competent trade union. In the more serious cases he shall . . . procure the approval of the government labor section." [23]

The labor inspector has full power to visit any factory, institution or business establishment, or any other place where work is done, at any time, for purposes of inspection. On such occasions the law provides that "the labor inspector shall be furnished by the management with a suitable room for resting, spending the night, and official work."[24] The management is also required to furnish to the inspector any explanations for which he may ask and to submit to him all documents, books or other information that he may require. In cases where the inspector finds failure to comply with labor legislation or regulations, he issues to the management instructions for remedying the defects. Compliance is absolutely binding upon the part of the management.

While visiting an establishment the labor inspector is required to fix special days and hours for interviewing the representatives of workers' organizations and individual workers, and to receive communications from workers. Arrangements must be made to hold these interviews at least twice or three times a week. The law also definitely stipulates that the interview hours which are set be those most convenient for the workers—if possible in the evening.

Besides these elected inspectors there are special technical inspector-engineers. These are specialists in the field of safety appliances for machinery and they conduct the inspection in this field. Sanitary inspection is conducted

by medical specialists. Both of these groups work in cooperation with the labor inspectors.

Besides the benefits derived by virtue of their membership in the trade unions, all workers in the Soviet Union, whether trade union members or not, receive a wide variety of benefits from a State administered system of "Social Insurance."

Social insurance benefits extend to all persons within the Union who work for wages, whether they be employed by State, cooperative or private concerns and whether they are members of the trade unions or not. The work of social insurance comes under the jurisdiction of the Commissariat for Labor, which directs it through a specially organized "Céntral Insurance Administration." The officials of the insurance administration, while State officials, are nominated by the All-Russian Council of Trade Unions.

The contributions for the insurance of the workers are paid exclusively by the employers. Insurance scales are fixed by the Council of People's Commissars. The tariff now in force, that of February 26, 1925, amounts to approximately 14 percent of the total amount paid by the enterprise or institution as wages. The worker pays nothing toward the cost of the insurance and employers are strictly prohibited from deducting any of their insurance charges from the wages of the workers. Should an employer fail to make his insurance payments, the law protects the worker by prescribing that he is nevertheless entitled to insurance benefits upon the establishment of the fact that he has been employed in the undertaking. During the first half of 1926, about 310 million roubles was collected from employers by the insurance offices.

The number of insured persons embraced by the insurance administration is shown by the following figures:

Date	Million
1923 (Jan. 1)	4.940
1924 (Jan. 1)	5.455
1925 (Jan. 1)	6.062
1926 (Jan. 1)	7.732
1926 (Mar. 1)	7.804

Article 176 of the Code of Labor Laws provides for the following forms of insurance relief; (a) Medical benefit; (b) benefits for temporary loss of labor capacity (illness, injury, quarantine, pregnancy, confinement, care of sick member of family); (c) supplementary benefits (for nursing of children, purchasing medical supplies and burial of the insured or members of his family); (d) unemployment benefit; (e) pensions for invalids; and (f) the granting of benefits to the families of insured persons in the event of the death or disappearance of their breadwinner.

In addition to the above-mentioned forms of insurance, which are required by law, the insurance offices also provide sanatoria and health resorts for the insured where, when necessary, they may recuperate from illness, as well as rest homes for workers and vacation places. For these purposes the government has turned over to the insurance administration the beautiful palaces, in the Caucasus and elsewhere, of the former bourgeoisie and nobility. During the summer months (April-September) of 1926, 499,505 sick workers were cared for in these sanatoria, rest homes and health resorts.

Of this number 359,500 were sent at the expense of the Social Insurance Department, and the remainder by the trade unions. In 1927, according to the plans of the Social Insurance Department, 513,219 workers will be sent at the expense of the department. For this purpose, 30 million roubles have been appropriated from the Social Insurance funds.

As sick benefit, insured persons receive free clinical aid, hospital treatments, medicine and medical appliances. Persons temporarily incapacitated also receive, from the first day of disability, the full wage earned prior to their illness. Women in childbirth receive the special benefits already discussed in this chapter.

Aged persons, or, in the event of death, their mothers or widows, are entitled to old age pensions if they were working for wages at least eight years prior to their disability. They either receive old age pensions or are placed in special homes for aged persons where, in lieu of their pension, they receive complete maintenance.

Unemployed persons also benefit from the social insurance funds. Persons are entitled to unemployment benefits only if they have no other means of support and if they keep their name upon the register in the unemployment bureau. The unemployed pay no rent, travel at reduced fares and enjoy a number of additional privileges. Cash benefits vary for different classes of workers, ranging from the legal minimum of one-sixth of the average wage upwards.

Unemployment in the Soviet Union has been on the increase during the past few years. At the end of 1926, the labor exchanges throughout the Union had 1.023 million unemployed persons enrolled upon their lists.[25] There were probably others who had not registered at the exchanges. Unemployment prevails in spite of the

fact that industry is expanding and that the number of workers employed is growing rapidly.

The unemployment is due to three causes: (1) Large numbers of seasonal workers, after their season has been concluded, register themselves as unemployed; (2) women, no longer content to be mere housewives, are going into industry at a faster rate than the expanding industrial machine can accommodate them; and (3) the rural population is going to the cities.

The last factor is the most serious. As the culture of the peasantry increases, the rural population is captivated by the rumors of expanding industry and flocks to the towns in the hope of improving their condition of life. This is particularly true of the youth of the villages. They go to the industrial centers ready to take any kind of work, although they are untrained industrially. It is these people who fill the ranks of the unemployed and, as their numbers are increasing, the Soviet Union will have to face conditions of chronic unemployment for several years to come. This does not hold true among skilled workmen. There is an actual shortage of skilled workers in the Soviet Union.

The unemployment problem is being handled in three ways. The first is the utilization of the unemployed in building public works; the second is the granting of unemployment relief; the third way is the organization of collective cooperative artels for the utilization of the labor of the unemployed. The latter method has not yet taken very firm hold. There are, at present, only 2,000 associations of this type numbering, in all, about 90,000 persons.

The Soviet Union is still poor. Conditions among the workers are still hard—but they are continually improving. The most important factor of all, however, is the

realization, upon the part of the workers, that they are the masters of the country and the owners of their own jobs. If material conditions are still hard, whatever there is is enjoyed equally by all. As the economic situation improves, the personal condition of the workers improves proportionally.

CHAPTER XII

NEW CAPITAL AND THE POLICY OF CONCESSIONS

THE successful attainment of the economic objectives of the Soviet State is bound up with the expansion of industrial production. The native industries of the Soviet Union must be sufficiently extended to satisfy the material wants of the population; to create the material basis for universal culture and socialized leisure, and to provide for economic and social improvement. As Leon Trotsky has phrased it, "The struggle for our socialist 'place in the sun' will necessarily be, in one way or another, a struggle to attain as high a coefficient of production expansion as possible."[1] Russia's "coefficient of expansion," i.e., the rate at which she is able to erect new factories and works, install new equipment and otherwise extend her productive capacity, is the measuring rod of the success which the Soviets are achieving in their efforts to build up a Socialist economy.

Heretofore the Soviets have been able to work upon the basis of available basic capital. The Soviet Union, at the time of the 1917 Revolution, came into possession of all the means of production which had been erected by the capitalist regime of the Czar. The factories, mines, railroads, office buildings, which had not been destroyed by the counter-revolution were there to be utilized by the new masters of Russian economy. The first task be-

fore the Soviet economists was to restore those portions of the economic system which had been damaged, and to set the whole in motion.

This process of "restoration" has now been completed by the Soviet authorities. Industry has been restored, and practically the entire available basic capital taken over from the pre-revolutionary period, plus certain renewals and extensions which have already been made, are now operating at their full capacity. From now on, Soviet economy must create sufficient wealth to maintain the *status quo* of industry; to make renewals of old apparatus and equipment; and to provide the capital for expansion of industry. Essentially, this is the problem of securing new capital.

The Soviet Union is attempting to meet the problem thus created in two ways. Firstly, out of her own accumulations and, secondly, by attracting foreign capital in the form of concessions and thus applying the accumulations of other parts of the world to the internal development of Russia.

Three principal means are relied upon to provide new capital from within the Soviet Union: (1) The utilization of the accumulations and profits of the nationalized industries; (2) the utilization through the budget of profits from other branches of the national economy; and (3) the application to industry and other State enterprises of the savings of the population through internal government loans, savings bank deposits, the cooperatives, etc.

The State budget is the chief instrument in the collection and distribution of the national accumulations of the Union. Through the budget, allocations are made for the expansion of industry, the electrification of the Union, etc.

In respect to new capital investments, the year 1925-26 differed from all others since the inauguration of the Soviet power in that appropriations for the construction and equipment of new establishments far exceeded their annual wear and tear. Moreover, this was true not only of their depreciation during the single year, but it exceeded their aggregate net depreciation for the entire period during which they have been under Soviet control.

In spite of large appropriations since 1923 for purposes of new construction, these were not sufficient, until 1925, to overtake the rate at which depreciation was taking place. During 1925-26, however, the Supreme Economic Council calculated that new construction and major repairs placed the productive equipment of Soviet industries at 9 percent above their former levels.[2] In all, 779.3 million roubles of new capital were invested in industry during the course of the year and provision is being made for expenditures of 946.9 million roubles during 1926-27.[3] The latter figure includes seven million roubles for the Dnieper Superpower Plant (*Dnieprostroy*), but not other electrical construction. If we include all of the sums assigned for electrification purposes, the sum for 1926-27 comes to 1,100 million roubles. In all branches of the national economy, investments of new capital for construction and equipment since 1923, exclusive of concessions, have been as shown in the table on the following page:[4]

Within a period of two years, from 1923 to 1925, the total investments in new capital more than doubled. For the year 1926-27, the curve continues to mount.

The amounts spent for the capital improvement of industry in 1925-26 included a sum of 582.8 million roubles for the construction of new factories and works.

Branch	1923-24	1924-25	1925-26	Recommendations of State Planning Commission 1926-27
Agriculture	645.5	743.0	849.9	966.4
Industry	245.3	339.5	779.3	*809.8
Large Electrical Works	42.0	43.3	69.1	90.0
Transportation	163.9	225.9	437.7	506.8
Telephone and Telegraph	5.3	12.1	23.0	28.0
Grain Elevators and Meat Refrigerators	3.8	7.1	24.9	11.8
Educational Enterprises, Health, etc.	25.9	39.7	66.7	82.4
Municipal Undertakings	26.3	65.9	102.5	152.0
City Dwellings	116.5	248.3	403.0	471.6
Total	1,274.5	1,724.8	2,756.1	3,118.8

This sum was over 237 percent of the amount expended for 1923-24.[5]

Since the beginning of this building program 172 new factories and 196 new mine shafts have either already been constructed or have been designated for construction. Eighty-one of the factories have already been completed and have commenced operations. Upon 12 of them work has already started. The remaining 79 are part of the construction program for the next two years.

Of the new mine shafts, 76 are already in operation in the Donetz Basin alone. Their capacities vary from 16,500 to 82,000 metric tons of coal each year. Ninety-seven new shafts of varying capacities are to be put in operation during 1926-27 while another 19 will be completed within five years.

In the petroleum industry, twelve new refining plants have begun to function. Nine more are nearing completion. In the metal industry, three new plants to be placed in operation during 1926-27 will have an annual capacity of 1.64 million tons of cast iron and one million

* Raised by Council of Peoples Commissars to 946.978 millions (exclusive of electrical construction—except Dnieprostroy.

tons of rolled iron. Work has already been begun at Stalingrad (formerly Tsaritsyn) upon a tractor factory the output of which will be 10,000 tractors per year. A new plow factory is already operating at Chelyabinsk in the Ural region and work has been begun upon four additional factories which will produce agricultural machinery. Three copper and zinc smelting plants are also now under construction.

In the textile industry 17 new mills have been projected for spinning, weaving and silk-reeling. Five of these have already commenced operations, nine are nearing completion, and three have been started. Five of the mills are being erected in the Central Asiatic and Trans-Caucasian Republics, outlying territories in which the process of industrialization had hardly penetrated at the time of the November Revolution.

For the preparation of agricultural products, 16 oil-pressing, canning, starch and glucose factories together with 25 sawmills and factories for the preparation of wood chemical products have either been erected or are in the process of erection. A distilling plant is nearing completion in the White Russian Republic. In Central Asia and the Caucasus 17 cotton ginning mills have been projected, 11 of which have already been erected.[6]

The total amount to be expended for industrial construction in individual industries during 1926-27 is to be distributed as shown in the table on the following page:

These amounts include the sums to be expended upon industries belonging to the individual republics as well as those enterprises of federal scope which fall under the direct jurisdiction of the Supreme Economic Council of the Union.

Much of the existing industrial equipment in the factories and mines is quite primitive and out of date.

Industry	Million Roubles
Metal	233.194
Electrotechnical	16.480
Fuel	272.531
Mining	22.043
Chemical	56.577
Timber	23.582
Paper	43.916
Textile	123.459
Agricultural	49.418
Silicates (Cement, Glass, etc.)	48.485
Printing and Allied Trades	2.313
Leather	8.900
Photo-Cinema Industry	.380
Syndicates	8.700
Dnieper Superpower Plant	7.000
Undistributed Reserve	30.000
	946.978

All of the new construction, however, is being carried out in accordance with the latest achievements of science and technology. Modern machinery is being installed, factories are being specialized and the whole of production standardized. The result will be mass production as a solution to the need of the Soviet Union for cheaper and better manufactures and an eventual state of equilibrium between rural demands and industrial capacity.

In spite of what the Soviet Union is doing to increase its basic capital, only the most urgent needs can be met out of present accumulations. Notwithstanding the large sums being invested in industry, the amounts are not sufficient to take full alvantage of the country's

natural resources or to keep pace with the continuously increasing demands of the peasants for industrial commodities.

There are, particularly in Siberia and the Far East, immense stores of natural riches which, as yet, have not even been sufficiently explored and which the Soviet Union could not develop with its own means for decades. The government therefore decided to attract foreign capital for the purpose of speeding up the industrialization of the Union and exploiting the natural resources. It accordingly grants concessions to foreigners which make it profitable for them to invest in mining enterprises, manufactures, new construction and agriculture.

The policy of concessions was embarked upon by the Soviet Union as the result of a decree of the Council of People's Commissars in November, 1920. The original law has subsequently been considerably enlarged until the following fields are now open to concessionaires:

(1) Production concessions for the exploitation of the natural resources of the Union.

(2) Industrial concessions for the manufacture of articles urgently needed in the Soviet market. Under the same head there may also be granted permission to construct and equip, in the latest scientific and technical manner, industrial units of all kinds.

(3) Trading concessions. This type of concession grants to foreigners the right to open in the Soviet Union an office for the purpose of conducting import and export operations. Each individual transaction, however, must be sanctioned and li-

censed by the Commissariat for Home and Foreign Trade in addition to being ratified by the concessions authorities.

(4) Agricultural concessions which have as their purpose the investment of new capital in agriculture and, as a result, the introduction of more scientific methods of cultivation.

(5) Transportation concessions giving to foreign firms the right to build new railways and to organize other means of transport.

The department which has complete charge of the attraction of foreign capital into the Soviet Union is the Chief Concessions Committee in Moscow. In foreign countries the Chief Concessions Committee operates through concessions commissions which are attached to the trade delegations. At the present time such commissions exist in Berlin, London, Paris, Rome and Tokio. These concession commissions are the only bodies which have any authority to conduct concessions negotiations. Their work consists of conducting the preliminary negotiations and furnishing information to interested parties relative to the conditions under which concessions may be granted.

Upon the conclusion of the preliminary negotiations, the Chief Concessions Committee in Moscow comes to a final agreement with the foreign firm. The documents are then submitted to the Council of People's Commissars for final ratification.

When a concession has been ratified by the Chief Concessions Committee and passed by the Council of People's Commissars, the concession contract itself becomes a law. It is, therefore, on a constitutional level with the general laws of the country. In all matters not

specifically provided for in the contract the contracting concessionaire is subject to all of the general laws and regulations of the Soviet Government.

The property given over to the concessionaire, and the installments and improvements made by him, may not be nationalized, confiscated or otherwise taken away during the life of the contract. The term of the concession is definitely stipulated. It varies in each case and usually ranges from 25 to 50 years. The period is dependent upon the amount of capital to be invested, the anticipated profitability of the undertaking, the accessibility of the property, etc.

There is usually, though not always, a clause in the concession contract which obligates the concessionaire to effect a defined minimum of exploration and research in connection with the properties which are given over to him and the processes involved in converting his raw product into finished form. Another important provision, in the case of every contract, is one which specifies the minimum capital which must be invested in the ceded property. In order, moreover, to insure thorough exploitation and development of the property, the concessionaire is required by the terms of his contract to make all of the latest scientific improvements and installations and to import modern equipment and machinery—which may usually be brought into the country free of the regular tariff duties. In the case of property whose potentialities are known, a minimum production program is worked out. When this capacity is not known, the production program is agreed upon after a stipulated amount of research and exploration has been completed.

For the right of concession, the concessionaire is required to pay to the government a specified portion of

his production as a royalty. The amount at which this is set varies in each case, depending upon the value of the property and the privileges contracted for. These royalties may be paid either in kind or in their equivalent money values. In addition to royalties, the concessionaire is required to pay the same taxes as those which are paid by State organizations engaged in similar enterprises.

In employing labor, the concessionaire is required to fulfill all of the conditions specified in the country's labor code and all other labor laws and decrees of the Soviet Union. He is free to employ foreign help up to a stipulated percentage of the total number of workers employed, usually limited to 15 percent. Wages are fixed by a collective agreement between the concessionaire and the respective trade union.

Any conflicts which may arise between the concessionaire and a third party are settled according to the law of the Soviet Union by the the court in whose jurisdiction the particular type of case may happen to fall. Any misunderstanding or dispute, however, which may arise between the Soviet Government and the concessionaire over the execution or the interpretation of the latter's contract are settled by a specially convened arbitration court. For the judges of this court each party nominates one member and these two select an umpire. If such an umpire cannot be agreed upon, the choice is left to some absolutely impartial or unbiased group, usually the professors of some European university or other learned body.

Upon the expiration of the term of the concession, the original property, plus all subsequent installations and improvements, automatically reverts to the Soviet Government. Stocks, cash money and merchandise remain

the property of the concessionaire for disposal as he may see fit.

An example which is typical of most concession contracts, and which is illustrative of their general terms and provisions, is the Lena Goldfields Concession, granted in 1925 to an Anglo-American syndicate. The agreement gives to the foreign concern three separate regions for exploitation: the well-known gold mines located in the Lena-Vitim district of Eastern Siberia; copper, iron and timber resources in the Sissert and Revdinsk regions in the Ural Mountains; and the copper and zinc resources in the Zmeinogorsk and Ziryansk districts. In addition, the company has secured the right to exploit the Kolchuginsk coal mines, which enables it to supply its enterprises with its own coal.

All of these properties were handed over to the company in working state. But the company has undertaken to do additional exploration work and to construct metallurgical works, copper, zinc and silver refining plants involving a minimum investment of 11 million dollars. The concession for the Lena-Vitim gold mines expires in 30 years; those of the other regions in 50 years. After these periods of time have elapsed, the developed enterprises become the property of the Soviet State.

The payments of the Lena Goldfields syndicate to the government consist of all the usual taxes plus a royalty amounting to from 4½ to 7 percent of the total output. All labor questions are regulated in accordance with the labor code of the Soviet Union, while wages are fixed through collective agreement between the company and the trade unions. The company may employ up to 15 percent of foreign workers and up to 50 percent of foreign personnel in the managing and technical staff.

Of late the Soviet Government has increased its vigilance in reference to foreign capitalist interests which apply for concessionary privileges. It must be convinced of the soundness of the enterprise and of the fact that the concern has the experience and the resources to carry out the provisions and the obligations of its contract. It is a matter of more than passing significance that while 1,909 appplications for concessions had been received in the five-year period ending September, 1926, only 141 of these appplications had been granted by the Soviet Government. During the year 1925-26, 400 applications were received as compared with 300 in 1924-25.

The 141 concessions which had been granted up to September, 1926, were in the following fields:

	1922	1923	1924	1925	1926	*Total*
Manufacturing	....	8	7	8	16	39
Trade	5	13	10	6	2	36
Mining	4	3	5	9	3	24
Transport	4	6	1	1	....	12
Agriculture	4	4	....	2	....	10
Timber	1	4	1	....	....	6
Fishing, Furs, etc.	....	3	1	1	1	6
Others	....	3	....	3	2	8
Total	18	44	25	30	24	141

According to nationality, these 141 concessions were distributed as follows: German, 39; British, 22; American, 15; French, 4; other countries, 61.

During these early years of its development it is an expensive policy for the Soviet Union to allow such large and important economic units to fall into the hands of foreign capital. However, it does furnish to the country large amounts of foreign machinery which the Union alone could not purchase for many years to come. It also introduces sorely needed productive methods and technique of the more highly industrialized nations.

From these concessions the State treasury is also in continual receipt of large revenues in the form of royalties, which can be applied to the development of the purely State enterprises. The money received in 1925-26 by the Soviet Government from the concession in the form of royalties amounted to 9.635 million roubles plus 15.238 million roubles from taxes, duties, etc. Moreover, the concession policy will in the long run leave the country equipped with an adequate amount of capital and developed resources as, one by one, the periods of the concessions expire and the leases revert to the government.

In the meantime, the State is not granting enough concessions to allow the commanding positions in the national economy to slide out of its hands, even to a minor degree. The production of the enterprises leased on concession is almost negligible in comparison to the total national output. Every vigilance is exercised not to permit the concessionaire to occupy any position of decisive predominance in the national economy of the country.

CHAPTER XIII

DEVELOPING NEW SKILL

One of the greatest needs of Soviet industry, both for the present and for the immediate future, is a larger body of skilled workers. There are very few skilled workers in the Soviet Union who are unemployed. On the contrary, there is a serious shortage of such workers and as industry expands and new factories and plants are erected, many of them in fields scarcely known in pre-revolutionary Russia, an ever growing body of highly skilled engineers, mechanics and technicians becomes a matter of imperative necessity.

Prior to the Revolution, large blocs of Russian industry were owned by British, French, German, Belgian and American capitalists. All of these foreign capitalists brought into Russia numbers of trained workers and technicians to serve as directors, managers and engineers. During the war and the revolution many of these foreign experts left the country. Large numbers of Russian engineers followed them.

This left the Soviet Union with the problem of building up a technically skilled corps of workers who, industrially, would be efficient and who, socially, would be in sympathy with the new workers' society. Hence there has been established a wide network of technical and craft schools which, in collaboration with the State-owned factories and workshops, are creating among the

rising generation a technically trained personnel for the various branches of industry.

All of these schools aim to produce not only good technicians, but also good citizens who are in sympathy with Communism as well. They therefore combine thorough grounding in the social sciences with industrial theory and practice.

The schools for technical education within the Soviet Union are of the following general types:

1. Professional (technical and trade) schools, training workshops and factory workshop schools.
2. Higher technical schools.
3. Workers' faculties (*Rabfacs*).
4. Universities (advanced technical schools).
5. Research institutes.

The professional (trade) schools are very similar in their organization to the agricultural and technical high schools which exist in the United States, with the exception that the students who attend them also do practical work at factories or workshops. They give to their students an elementary technical, or professional, education and they constitute a second rung on the Soviet educational ladder. Most of the children who attend them have been through the "labor" schools, i.e., the institution corresponding to the elementary school of the United States. No child under fourteen is granted admittance into the professional schools.

Most children in the Soviet Union are 15, 16 or 17 years of age when they complete the labor school. They are then expected to pick out the trade or profession which they wish to follow and to enroll in a school which specializes in this line of activity.

The course of study in the professional school varies

from three to four years, depending upon the trade or profession which is being taught. During the school term, part of the student's time is spent in the actual work of the industry for which he is preparing. After completing the course the students are expected to serve as apprentices in establishments corresponding with the specialty they have chosen. After completing his term of apprenticeship, the student is considered to be technically trained for the class of work for which he has been preparing.

The professional schools are not only of the industrial type. Others prepare for such callings as pharmacy, or agriculture, etc. In each field the curriculum and length of course is varied, according to the particular conditions prevailing in each. In the agricultural schools, for example, students spend about eight months each year at school and during the three summer months they do practical work on a farm.

The trade unions usually consider the upper grade professional students to be eligible for membership in the regular trade union organizations. The students are also organized for purposes of self-government. Discipline and standards of work are enforced by the students themselves through boards of representatives elected from each class.

In the same class of schools are the "training workshops" which cater to the needs of rural economy. Artisan and handicraft schools, the usual type of training workshops, train young people for more highly organized and perfected forms of labor than those which prevail among the village populations where they live. They also train students in the use of modern up-to-date agricultural machinery and methods.

"Factory workshop schools" are professional schools

for juveniles who have entered industry prior to eighteen years of age. They are organized in conjunction with, and on the premises of a factory, workshop, mine, or other productive enterprise.

The Soviet law prohibits children under 16 years of age from going to work. In special cases, however, the labor inspectors may grant special work permits to those between 14 and 16 years. They may not, however, be employed for over four hours each day. Young persons between the ages of 16 and 18 years may not be employed more than 6 hours per day. These young workers, who serve as apprentices in the factories, therefore have considerable free time upon their hands. In order that they may not be compelled to remain in the unskilled and uneducated class, and that all workers be trained and efficient, part-time factory schools are provided for them.

Every enterprise is required to furnish this type of practical and theoretical training for apprentices between the ages of 14 and 18. The factory must provide for apprentices numbering not less than 6 percent of the number of workers in the enterprise. There may not, on the other hand, be more than one apprentice to every two workers. The percentage of apprentices in each industry is usually specified in the collective agreement.

Children between the ages of 14 and 16 attend school four hours each day and work in the factory four hours. Those between 16 and 18 work six hours a day and attend school two hours.

The students at factory schools are given the basis of a general academic education as well as technical instruction. The latter phase of their training lays before them all available particulars and details of the enter-

prise with which they are affiliated. They are systematically instructed in the mechanical and technical elements of all branches of their trades.

A large number of these apprentices, usually 50 percent, are selected from among the children of workers in the enterprise. For the work they perform they are placed in the first wage category and they receive between 15 and 20 roubles per month. This is gradually increased as their courses progress until, in their last school year, they are receiving between 40 and 50 roubles per month, which is slightly less than is received by the full-time unskilled workers in the plants. While these amounts look small in terms of United States money, in the Soviet Union their purchasing power is sufficient to provide for the needs of the students during their apprenticeship periods. When these have been completed the students are given positions in the plant. Their wages are then higher than the average and if they display proficiency and capacity for their work they are soon in the ranks of the skilled workers.

These juvenile worker-students are, of course, eligible for the trade unions of their plants. They pay one percent of their wages as dues to the union and they enjoy full trade union privileges. Many of them are also members of the Young Communist League. The schools are run upon a self-governing basis. The students handle school discipline themselves, participate in school administration and elect their own committees to supervise such problems as hygiene, working conditions, etc.

Because of the limited material resources, many details of the program outlined by the authorities for the professional schools can not as yet be put into force. An excellent beginning has been made, however, and each year conditions are improving. Eventually, every

child will have passed through at least one of the branches of the system of professional trade-schools. There will then be no worker in the Soviet Union who has not had the equivalent of the technical high school education in the United States.

From the point of view of the industrial machine, the professional schools ensure a steady supply of workers who have had a background of both theoretical and practical training. From the standpoint of the individual worker, the schools assure him an education, regardless of his economic conditions, or those of his parents. Even if his parents are poor, the graduate of the professional school will not become an untrained drudge, but will be fitted for a responsible post in the Soviet economic system. From the point of view of the Soviet State, the entire population will eventually be a trained and literate one and will possess that education which is requisite to the building up of a full measure of Socialism.

Technical education in the Soviet Union does not necessarily cease when the student has passed through the professional school. "Higher Technical Schools," corresponding in grade to American colleges, are organized for the fields of agriculture and industry. Higher technical schools are also organized in other fields, such as medicine, pedagogy, economics and social science, music and art. Only those, however, which train for direct participation in the industrial machine need concern us here.

The aim of the higher technical schools is to create a nucleus of highly trained specialists for industry. Admission is open only to citizens of the Union who have reached 17 years of age.

Students are admitted upon the recommendation of an organization connected with the labor movement—

usually their trade union—in some cases the Communist Party. Students must also be eligible under the regulations of admission published by the Commissariat for Education. These regulations vary slightly for each republic of the Union. In general, they require graduation from the professional school plus a minimum of one year of practical experience in industry. It is during this year that the trade unions and economic authorities observe the aptitude of the young worker and they recommend him to the higher technical school if he displays the inclination and ability to pursue higher work.

The average course at the technical colleges is of three years' duration. The workers are of greater than average skill before entering the institutions. While in attendance they receive general cultural instruction (history, mathematics, etc.) with thorough specialization in their chosen fields.

At the present time these higher technical schools serve over 25 trades. Each organizes its work in very close contact with the industry which it serves. The schools are all located in the vicinity of the factories or works for which they are preparing specialists. In addition to his scholastic work, each student is assigned to a factory, mine or other establishment. There he is required to spend at least one day each week and also a large part of the school recess during the summer months. He must present periodic reports upon the conditions in the plant.

Upon completing his studies at school, the student spends one or two years in practical industrial work. If, at the end of that time, the school authorities and the industrial authorities are convinced of his competence, he is given a certificate of proficiency as an engineer.

Students of working class parents are given preference in admission to these institutions. They are also exempt from the payment of fees and are paid subsistence stipends. Sons and daughters of business class families are required to pay tuition. In many places evening instruction is arranged. Evening students study for four years. Practically all of the students are organized in their respective trade unions.

In many cases mature factory workers, who have had no educational preparation, display an aptitude for work of a higher grade than that which they are doing. In order that these men and women may have the opportunity to receive higher technical training and prepare, if they wish, for the Universities, special "Workers Faculties" (Russian abbreviation: Rabfacs) have been organized. Rabfacs are intended only for mature workers who, having spent their youths under Czardom, had no educational opportunities. Gradually, as this generation passes, the Rabfacs will probably disappear.

Students are sent to the Rabfacs by Trade Unions, Communist Party organizations or Village Soviets, which in many cases support them during their school course. Here all of the students are organized in their respective trade unions and political organizations.

The Rabfacs offer three to four year courses, all of which are designed to meet the needs of those who expect to be employed at skilled occupations. In some of the institutions full-time day courses are given; in others students work by day and attend school at night; still others are organized on a part time basis. In all of them, however, workers come directly from their jobs and receive a technical training.

For mature workers who cannot attend the Rabfacs, the Commissariat for Education and the trade unions

arrange numbers of non-school technical courses and evening technical classes. The instruction is divided into: (1) Elementary training to train older workers; (2) Advanced courses to train highly-skilled workers, foremen and administrative workers; and (3) Emergency subjects which are given as special needs arise. In the evening technical classes, the course of study is spread over four years.

All of the forms of education thus far examined, train students who go back into industry. The purpose of all is to train more competent workers—in no case is it to lead people out of the working class. A few who show unusual promise continue their studies in higher institutions where they are trained to become managers, engineers and scientists.

The Soviet "University" is not, as in the western countries, a collection of different college faculties embraced in one organizational unit. Rather is it a highly specialized technical school operating in a single field.

Universities in the Soviet Union are organized at the point of production. The student is given actual contact with his special activity. For those students who are specializing in mine engineering, study and research are carried on in the mines; prospective electrical engineers learn their callings at electrical plants, the electrical plant itself serving as their laboratory; and so on.

Every large industrial unit has departments of research and investigation. Here experts carry on theoretical work and they also direct the activities of the younger men. While some universities in the old sense of the word still persist in the larger cities of the Soviet Union, they are rapidly being replaced by this newer type.

University life usually extends over a period of three

years. Students who have no other means of support receive stipends which, while not very large, cover the necessities which the student requires while studying. Upon the conclusion of his course the student goes into industry, transport, or whatever else may be his special calling, in the capacity of a director or an engineer.

The very highest type of institution for technical education is the "Institute." The institute corresponds to the graduate school of the United States.

The institute fulfills a two-fold purpose in the Soviet economic structure. Firstly, it trains teachers and instructors for the higher technical schools; secondly, it carries on technical research and investigation. Special institutes for the social sciences carry on similar work in their fields.

For improving the body of industrial knowledge the State has created such institutes as the State Institute of Electrotechnics; the Central Aero-Hydrodynamic Institute, and so on.

In the institutes practically no teaching is carried on. Research occupies the full time both of the students and their directors. Each institute has its own field with its special problems. The scientists set to work to solve existing problems and to improve upon existing methods.

One of the institutes whose work is different from that of the others, but which is of particular interest, is the Central Labor Institute in Moscow. This organization has for its purpose the study and application of methods of industrial administration, scientific management and methods of industrial efficiency. Another department receives students whom it trains to become instructors in scientific methods for industrial plants.

The institute has a series of laboratories in which workers are photographed while performing industrial

operations. The mechanics of the movements are then studied with the view of eliminating waste motions. Other laboratories study such problems as fatigue, working conditions, etc. Another department studies tools with a view to their standardization; yet another studies working space and working time; while a separate section works upon the task of how best to train apprentices to become skilled mechanics in the shortest possible time.

The institute maintains a comprehensive library where all of the books and periodicals upon scientific management are gathered from many countries and in several languages. Correspondents abroad also keep the institute in touch with the newest developments in foreign countries.

Both the number of technical schools and their attendance are growing just as rapidly as material conditions will permit the concentration of funds and resources upon the educational front. Full statistics are not available for all forms of technical education, but the following figures will give some idea of the growth, during the period of a single year, in four major fields:[1]

	1924-25		1925-26	
	Establishments	*Attendance*	*Establishments*	*Attendance*
Lower Grade Technical Schools	3,931	428,333	3,348	349,915
Middle Grade Technical Schools			979	180,522
Higher Educational Establishments	158	165,268	151	169,076
Workers' Faculties	114	43,109	108	47,174
	4,203	636,710	4,586	746,687

In the Soviet Union workers are being trained to become skilled members of their craft. Education is not for the purpose of lifting them out of their class; it has the end in view of making them skilled and intelligent

members of that class. This is the first outstanding characteristic of Russian technical education.

The second characteristic of education in the Soviet Union is that the members of the working class and their families receive first preference, from the kindergarten through the university. If there is lack of facilities, the child of a worker or peasant always receives preference over the child of the non-worker. Lastly, it is made economically easy for workers to receive an education. In the lower schools tuition is free. In the higher institutions the student of working class origin not only receives free tuition but board and room, in addition, and usually a small monthly allowance. Under the Soviet system no worker need lack an education because of an economic handicap.

When conditions in the Soviet Union make possible the fulfillment of the educational program of the authorities, every worker will have been trained and made proficient in his craft. Every industry will be turning out from its own ranks skilled mechanics, technicians and engineers. In this way the Soviet Union will meet the need for higher labor productivity and will also fill the demands of an expanding industrial machine for leaders and directors.

PART III

RESULTS

CHAPTER XIV

THE PRODUCTIVITY OF THE SOVIET UNION

When the Bolshevik Revolution took place, prophets of the western countries looked at Russia and declared, "Chaos will triumph there in three weeks." They extended the time to three months and then to three years. The system of Soviet economy has entered upon its tenth year.

During these ten years the industrial structure of the country has gone through three main phases. The first was the short period of Workers' Control. The second the period of Military Communism and the last is the period of the New Economic Policy.

The first of these periods was too short to justify conclusions. The country had hardly taken its breath and realized what had happened when Workers' Control had to be abandoned in favor of Military Communism.

Military Communism was the product of cast-iron historical necessity. It was mobilization, or militarization, of all of the productive forces of the country for the purpose of waging war against internal and foreign foes.

Military Communism carried the country through this series of conflicts. But the economic structure of the country was nearly ruined under the strain. The output of factories fell to between 15 and 20 percent of their pre-war levels. The wealth of the country, which was 92,500 million roubles prior to the war, declined to

59,300 million roubles after the World War, Civil War and intervention had been terminated. The direct losses inflicted on industry alone by the intervention and blockade were estimated at the Genoa Conference at 9,212 million pre-war roubles.

It was not until 1921 and 1922 that Russia was able to demilitarize her economic machine and place it upon a peace-time basis. During the years since that time the precedence of military strategy has given way to the systematic extension of the productive forces of the country and her rate of economic development has been greater than that of any other country in pre-war or post-war times. The military general staff yielded to the economic general staff—the State Planning Commission, or Gosplan. Gosplan, in spite of objective difficulties, has been carrying through its extremely complicated planning work, and the Soviet administration has accomplished the miracle of restoring economic life to its pre-war level in five years.

The Soviet Union contains a wealth of natural resources to serve as the material basis for her economy. Of her land area, covering one-sixth of the entire surface of the earth, only about 20 percent is not cultivable. The remainder is covered with forests, farms, pastures, vineyards, and the like. The country has 17 percent of the total of the world's area under wheat, 60 percent of the world's area under rye, more than 20 percent of the area under barley and 20 percent of the area under oats. Her livestock compares with the world's total almost as favorably.

Russian mineral deposits are also extensive. Her known deposits of coal comprise 5.6 percent of the world's supply; she has 35.1 percent of all the oil; 4.9 percent of the iron, as well as extensive deposits of

platinum, gold, copper, manganese, silver, precious stones, lead, zinc, etc. In addition, she has 27.9 percent of the world's timber, rich supplies of fur, fish, and so on.

The production of all branches of industry, light and heavy, was 3,414 million pre-war roubles in 1923-24. Within two years it increased by over a hundred percent, reaching 6,923 million roubles in 1925-26. This represented 92.2 percent of the pre-war status. During 1926-27 productivity should be 7,855 million pre-war roubles, or about the pre-war level. The process of restoring industry may be said to have been completed. From this point on new economic construction will be the order of the day.

The number of workers engaged in industry, as well as their productivity, and their wages, have also been advancing steadily. Exclusive of seasonal workers, industry, during 1922-23, employed 2.043 million workers. In 1925-26, the number was 3.092 million. Productivity of labor, during the same period, advanced 203.9 percent, while wages went up 242.2 percent.

The recovery of agriculture has paralleled that of industry. During 1924-25 the value of agricultural production at pre-war prices amounted to 9,000 million roubles, which was 75 percent of the crop values during the good pre-war crop year, 1913. By one year later, 1925-26, the crop values had gone up to 11,300 million roubles at pre-war prices, the latter value being 94.2 percent of 1913. In 1925-26 the total areas under cultivation were about 95 percent as great as in 1913. During 1926-27, as in the case of industrial production, the agricultural output, as well as the areas under cultivation, will exceed the pre-war standards.

Livestock has increased, both in number and in qual-

ity, during the past five years. Big-horned cattle are 2.881 million greater in number than they were in 1913. Other kinds of stock have almost, though not quite, attained their 1913 numbers.

With the general recovery in the productive branches of the country's national economy, trade turnovers have advanced correspondingly. The purchasing power of the peasant, and his demand for industrial commodities, has grown with the increased value of his crop. The general increases in the wages of industrial workers have similarly expanded their purchasing capacity.

The Soviet economic authorities have not been able to meet the unprecedented demand of the Soviet Union for commodities of all kinds, and the country is experiencing a goods shortage. Wholesale trade, which went up from 4.724 million roubles in 1923-24 to 10,463 million roubles in 1925-26, and retail trade, which jumped from 5,027 million roubles in 1923-24 to 10,003 million roubles in 1925-26, could both have been considerably greater had the trading agencies of the country been in a position to meet the full demand for commodities.

Foreign trade, completely cut off during the years of intervention, was resumed in 1920. In 1922-23, when most of the trade treaties and agreements with foreign countries had been signed, the total turnover was 398 million roubles. By 1925-26 it had reached 1,424 million roubles as compared with 2,894 million roubles in 1913. As in other branches of the national economy, there has not been a year since 1920 that the foreign trade turnover has not increased substantially.

The Soviet Government inherited a very feebly developed and badly equipped system of railways from the Czarist regime. In 1913 the total length of the railways,

within the territory which now constitutes the Soviet Union, was 36,140 miles. Approximately 28,000 miles of this fell within the field of military operations, of which only 11,000 miles escaped destruction. As a result of new construction each year, however, the total length of railway lines at the present time is 46,434 miles, about 120 percent of what it was in 1913. Additional construction is planned for at the rate of about 2,000 kilometers (1,242 miles) a year.

The recovery and stability of other branches of the national economy have been reflected in the realm of finance. The budget has been balanced since 1924-25 and has grown in proportions from 1,460 million roubles in 1922-23 to 2,935 million roubles in 1924-25 and 5,002 million roubles in 1926-27. A gold backed currency has been issued and its volume has increased from 271 million roubles on October 1, 1923, to 1,412.6 million roubles on January 1, 1927. In 1913 the amount in circulation was 1,921.7 million roubles. Since the new Soviet currency was first issued at the end of 1922 it has maintained its par value in European markets.

Due to the prevailing political conditions, the Soviet Government, alone among the powers of Europe, has contracted no debts with foreign governments or foreign bankers. The Soviet Union has, therefore, carried through her reconstruction entirely out of her own accumulations. On January 1, 1927, she had an internal debt amounting to 750.1 million roubles.

The basic capital of all branches of the national economy—agriculture, industry, electrical concerns, municipal undertakings, house construction, etc. — totalled 49,558.7 million roubles in 1923-24. New capital investments (exclusive of concessions) have been made at the rate of 1,273.5 million roubles in 1923-24; 1,724.8

million roubles in 1924-25; and 2,756.1 million roubles in 1925-26. During 1926-27 the sum expended upon new capital in all branches will be upwards of 3,255 million roubles.

The national economy of the Soviet Union had been completely restored, by 1927, from all of the ravages of the war, counter-revolution, blockade, intervention and famine. The process of restoration has been practically completed. From this point on the country will be building up anew.

The development of the country's national economy is continuing in all fields. Industry is becoming modernized; the primitive methods of the Czarist period are being scrapped; modern machinery is being added as fast as money or credit is available for its purchase. Wages are going up; the productivity of labor is rising; the people are growing more prosperous.

The Soviet Government is also breaking down the barriers of ignorance and illiteracy which have surrounded the Russian people for ages. With a system of widespread education, a political and economic system organized and operated in the interest of the workers, and, as a result, an intelligently cooperating population, coupled with the country's tremendously large supply of natural resources, the Soviet Union is steadily becoming a larger and larger factor in the economy of the world.

CHAPTER XV

THE ECONOMIC TREND

THERE is not a Communist in the Soviet Union who would venture to suggest that a full measure of Socialism has been achieved. Lenin pointed out in 1921 that "the expression Socialist Soviet Republic means the determination of the Soviet Power to realize the transition to Socialism, and does not by any means signify that the present economic order is regarded as Socialistic."[1] The Soviet Union is in the transition stage, the period between Capitalism and Socialism, the period of the "Dictatorship of the Proletariat." During this period the work which is being done is that which was indicated by the present head of the Communist International, Nikolai Bukharin, when he entitled his recent pamphlet, "*Building Up* Socialism."[2]

What, during this period, is the trend of the historical forces which are at work? What are the relative coefficients of the capitalistic and the socialistic factors in the national economy? Is the Soviet Union headed toward Socialism, or is it veering back in the direction of capitalism?

The successful transition to Socialism involves three prime factors. Firstly, the State power must be in the hands of the new order and wielded in the interests of the working class and against the growth of the capitalistic forces. Secondly, Socialism is not possible without

large-scale industrialism. It cannot be accomplished in a backward country; it requires "technique constructed according to the last word in science." [3] Lastly, the socialized forces of production, distribution and exchange must continually expand and those of private capital must lose ground in the struggle. The answer to these three problems points the direction in which the economic life of the Soviet Union is moving.

The capture of the State by the forces of the new order has been complete. The group in power, which is guiding the work of the State, represents only the workers and the poorer peasants. As to the class nature of their rule they are quite frank. They neither represent nor pretend to represent all interests, but make deliberate use of the State machinery as an instrument against the private interests and for the furtherance of the interests of the working class and the peasantry.

The proletariat, therefore, dominates the State. It has the full force of the State power behind it in its struggle against private capital. A person above 17 years of age, who has no physical or mental defects, who is not classed as a worker (hand or brain), has no political or social rights. He cannot vote and is subject to extra taxes. The acquisition of great wealth by private individuals is being made extremely difficult, and the use of wealth for securing political influence or power has been rendered practically impossible. The Soviet State is unreservedly throwing the full force of its power into the fight to build a Socialist economy that will supplant Capitalist economy.

The first element in the transition to Socialism, the capture of the State, has been successfully completed. The Soviet Union is, thus far, the only State in the world based upon the repudiation of the principles of

private property and the acceptance of the principles of Socialism.

The chief economic task which the Bolsheviks have set for themselves, the industrialization of the whole country, is rapidly going forward. Industry is growing much faster than other branches of the national economy. If, for example, the production of agricuulture and industry in 1923-24 are each represented by the index of 100 percent, the growth of each in the subsequent years has been in the following proportions:

	1923-24	1924-25	1925-26	1926-27 (forecast)
Agriculture	100	108	128	134
Industry	100	148	203	230

Further, in 1922-23 industrial production represented only 22.8 percent of the production of industry and agriculture combined. In 1923-24 it was 27 percent. In 1924-25 it again rose to 35.3 percent and in 1925-26 to 37.9 percent. For 1926-27 it is estimated by the State Planning Commission that it will be 39.7 percent.

In absolute values (in 1913 roubles) the total production of industry was 3,414 million in 1923-24; 5,039 million in 1924-25; and 6,923 million in 1925-26. According to the forecasts of the State Planning Commission the amount in 1926-27 will be 7,855 million.

These figures all show clearly not only that industry is growing at a rate far exceeding its pre-war rate (which averaged 3.87 percent between 1900 and 1913, and during the most favorable of these years, 1908-13, 6.5 percent) but that its rate of increase is far greater than that of agriculture. The country is rapidly becoming industrialized.

Harmonious relations between the country and the city are being established by a number of measures which are lowering the costs of production to a point at which manufactured commodities will be within the economic reach of the peasantry. Economy in administration, industrialization, electrification, standardization, scientific organizattion of labor, are some of the means that are relied upon to bring about this result.

A vigorous "campaign of economy" is steadily lowering the costs of administration in all departments of the Soviet machine, abolishing bureaucracy and enforcing frugality in the expenditure of the State income. The economic and administrative apparatus now swallows up about 2 billion roubles annually. This is approximately the same amount that was being spent by the government of the Czar prior to the war, but the amount of work being carried on by the present apparatus is much greater because of the number of State enterprises which were in private hands prior to the Revolution. As a result of economies now being put into force, however, this annual amount will be reduced by between 300 and 400 million roubles and additional funds for the country's industry will thus be liberated.

The overhauling of the old machinery, the reequipment of old factories and the building of new ones is proceeding rapidly. We have already seen that from the beginning of the economic year 1923-24 to the end of 1925-26 some 5,754.4 million roubles were invested as new capital in all branches of the national economy. During the year 1926-27 more than 3,255 million roubles will be thus invested. Of this amount considerably more than a third will go into industry and electrification.

Foreign methods and foreign technique are being

borrowed and introduced. According to Trotsky, more than half of the Russian engineers have been to Europe and America and are continually bringing back methods and ideas that are likely to accelerate the economic progress of the Soviet Union. Technical experts from abroad are being employed regularly. In February, 1927, there were 135 foreign specialists, 72 foreign engineers and 63 foreign mechanics engaged in Soviet industry.[4] Foreign technical equipment is being purchased just as fast as home economic accumulations and foreign credits will permit. Imports of articles of luxury are being made to wait upon the more urgent call of industrialization.

Further elements which are accelerating the process of industrialization are the introduction of the planning principle to economic construction, the specialization of productive enterprises and distribution, the combination of similar enterprises into State trusts, and the standardization of production.

The socialization of science and technology has broken down the barriers which private property always places upon the findings of scientists. In the Soviet system there are no closed doors to the universal appplication of new discoveries and inventions. There are no "trade secrets," and new findings immediately become the common property of every enterprise of the Union which may possibly profit by them.

Standardization is also being applied to industry with rigidity. The number of types of products are being studied, the best ones determined, and production limited to these. In this manner production costs are being lowered, quality improved and the greatest possible results achieved from the existing industrial equipment.

There remains one other important economic answer to the question "Whither is the Soviet Union Bound?"

That is the relative positions occupied in the national economy of the Union by the socialized economic forces and those of private capital.

In 1923-24, the total industrial production of the Soviet Union amounted to 3,414 million roubles. Of this amount 75.3 percent was produced by the socialized (State and cooperative) forms of production and 24.7 percent was produced by private capital. In 1924-25 the total rose to 5,040 million roubles, of which 79.2 percent was socialized production and 20.8 percent was private. In 1925-26 all forms of production totalled 6,923 million roubles; 81.9 percent was socialized, 18.1 percent was private. In 1926-27 the State Planning Commission estimates that the production of the country will again rise and reach 7,855 million roubles. They expect 82.7 percent of this to be produced by the socialized agencies; 17.3 percent privately.*

These figures include not only large scale production but also small and handicraft industry. If the small and handicraft forms be eliminated, the production of the large-scale and basic industry was divided among the State, cooperative and private producing agencies as follows:

	Total (mill. roubles)	*Percent State*	*Percent Coop.*	*Total Percent Socialized*	*Percent Private (incl. concessions)*
1923-24	2,627	90.8	4.1	94.9	5.1
1924-25	4,061	92.1	3.8	95.9	4.1
1925-26	5,797	91.6	4.3	95.9	4.1
1926-27	6,640	91.8	4.1	95.9	4.1

Both of the above sets of figures upon industrial production are very significant. The State has practically overwhelmed private industry. When all forms are considered, the participation of private capital is seen to

* Private production includes both native private capital and foreign concessions.

have dropped from 24.7 percent in 1923-24 to 17.3 percent in 1926-27. Even in large industry, where the State grants concessions to private foreign capitalists, the total participation of private capital is only very slightly over 4 percent. Moreover, the concessions are for strictly limited periods and eventually they will return, with their equipment, to the State.

In the field of agriculture, where production is in the hands of many millions of peasants, and therefore difficult to bring within the scope of State planning and regulation, the achievements of the social forms of production have not been very great. The percentage of the participation of each group since 1923-24 has been as follows:

Year	*State*	*Cooperative*	*Private*
1923-24	13.2	.7	86.1
1924-25	12.8	.8	86.4
1925-26	11.4	.8	87.8
1926-27 (forecast) ..	11.5	.8	87.7

Agriculture is, then, small-scale, individualistic production which has not lent itself to socialization. The State is, therefore, giving encouragement to the participation of the peasantry in the cooperative societies as a method of making them socially conscious and accustoming them to group activity. About 30 percent of the peasant households are members of the agricultural cooperatives.

In the field of trade, as in that of large-scale industry, the socialized forces have scored notable successes. In wholesale trade the socialized forms participated to the extent of 78.2 percent in 1923-24; 90.5 percent in 1924-25; 90.6 percent in 1925-26 and 91 percent (esti-

mated) in 1926-27. Private participation in wholesale turnover consequently dropped from 21.8 percent of the total in 1923-24 to 9 percent in 1926-27.

In retail trade the participation of private capital is greater, but here, too, it is rapidly diminishing. The socialized turnover in 1923-24 was 41.4 percent of the total; in 1924-25 it was 55.7 percent; in 1925-26, 61.2 percent; and for 1926-27 it is estimated at 64.5 percent. The private turnover, consequently, has dropped every year, its participation being as follows: 1923-24, 58.6 percent; 1924-25, 44.3 percent; 1925-26, 38.8 percent; 1926-27, 35.5 percent.

The other three fields of national economy—foreign trade, transport, and finance—are virtual State monopolies and may be entered almost entirely upon the socialized side of the economic ledger. Although the State occasionally grants special permits to private capital to conduct a single foreign trade transaction (permits are not granted for more than one transaction), foreign firms and private persons, together, participate to an extent of less than 3 percent of the total turnover.

Socialized forms of economy in the Soviet Union have a monopoly over foreign trade, finance, credit and banking, and transport. They are rapidly driving capital out of both wholesale and retail trade; they have a near-monopoly of large-scale, basic industry and an overwhelmingly large portion of large and small industry combined. Only in the field of agriculture have they failed to make notable advances, but there production is distributed between millions of small peasants, whose holdings are so small that they are not likely to become serious accumulators of private capital before the State is able to industrialize and mechanize rural production and direct it in the path of cooperation. Besides, the

tempo of industrial development is much faster than that of agricultural development, and it appears as though agriculture must yield place to industry as the predominant element in the nation's economy, as it has already yielded in the principal industrialized countries of the world.

It appears, therefore, that the growth of the Socialist elements in the economy of the Soviet Union is continuing steadily and that private capital is receding. Moreover, and this fact is significant, it is the State—the socialized economy—which is making the attack upon private capital, not vice versa.

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